



MMWR

Morbidity and Mortality Weekly Report

Weekly

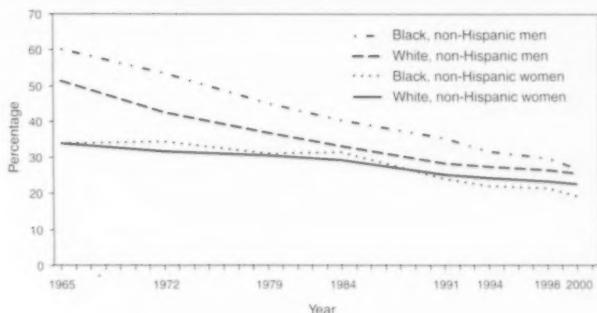
October 10, 2003 / Vol. 52 / No. 40

Cigarette Smoking Among Adults — United States, 2001

One of the national health objectives for the United States for 2010 is to reduce the prevalence of cigarette smoking among adults to $\leq 12\%$ (objective 27.1a) (1). To assess progress toward this objective, CDC analyzed self-reported data from the 2001 National Health Interview Survey (NHIS). The findings of this analysis indicate that, in 2001, approximately 22.8% of U.S. adults were current smokers compared with 25.0% in 1993. During 1965–2001, smoking prevalence declined faster among non-Hispanic blacks aged ≥ 18 years than among non-Hispanic whites the same age (Figure). Preliminary data for January–March 2002 indicate a continuing decline in current smoking prevalence among adults overall (2). However, the overall decline in smoking is not occurring at a rate that will meet the national health objective by 2010. Increased emphasis on a comprehensive approach to cessation that comprises educational, economic, clinical, and regulatory strategies is required to further reduce the prevalence of smoking in the United States.

The 2001 NHIS adult core questionnaire was administered by personal interview to a nationally representative sample ($n = 33,326$) of the U.S. civilian, noninstitutionalized population aged ≥ 18 years; the overall survey response rate was 73.8%. Respondents were asked, "Have you smoked ≥ 100 cigarettes in your entire life?" and those who answered "yes" were asked, "Do you now smoke cigarettes every day, some days, or not at all?" Ever smokers were those who reported having smoked ≥ 100 cigarettes during their lifetime. Current smokers were persons who reported both having smoked ≥ 100 cigarettes during their lifetime and currently smoking every day or some days. Former smokers were ever smokers who currently did not smoke. Data were adjusted for nonresponses and weighted to provide national estimates of cigarette smoking prevalence. Confidence intervals (CIs) were calculated by using SUDAAN.

FIGURE. Trends in the percentage of current cigarette smoking among persons aged ≥ 18 years, by race, sex, and year — National Health Interview Survey (NHIS), United States, 1965–2001*



* Because of small sample sizes in individual years, data were combined to provide more reliable and stable prevalence estimates. Data points shown and the combined NHIS surveys from which the data were derived are as follows: 1965 (1965–1966), 1972 (1970 and 1974), 1979 (1978–1980), 1984 (1983 and 1985), 1991 (1991–1992), 1994 (1993–1995), 1998 (1997–1999), and 2000 (2000–2001).

INSIDE

- 956 *Yersinia enterocolitica* Gastroenteritis Among Infants Exposed to Chitterlings — Chicago, Illinois, 2002
- 958 Racial/Ethnic Disparities in Influenza and Pneumococcal Vaccination Levels Among Persons Aged ≥ 65 Years — United States, 1989–2001
- 962 Primary Amebic Meningoencephalitis — Georgia, 2002
- 964 West Nile Virus Activity — United States, October 2–8, 2003
- 965 Recommended Adult Immunization Schedule — United States, 2003–2004
- 969 Notices to Readers

The MMWR series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

SUGGESTED CITATION

Centers for Disease Control and Prevention. [Article Title]. MMWR 2003;52:[inclusive page numbers].

Centers for Disease Control and Prevention

Julie L. Gerberding, M.D., M.P.H.
Director

Dixie E. Snider, M.D., M.P.H.
(Acting) Deputy Director for Public Health Science

Donna F. Stroup, Ph.D., M.Sc.
(Acting) Associate Director for Science

Epidemiology Program Office

Stephen B. Thacker, M.D., M.Sc.
Director

Office of Scientific and Health Communications

John W. Ward, M.D.
Director
Editor, MMWR Series

Suzanne M. Hewitt, M.P.A.
Managing Editor, MMWR Series

Jeffrey D. Sokolow, M.A.
(Acting) Lead Technical Writer/Editor

Jude C. Rutledge
Teresa F. Rutledge
Douglas W. Weatherwax
Writers/Editors

Lynda G. Cupell
Malbea A. LaPete
Visual Information Specialists

Kim L. Bright, M.B.A.
Quang M. Doan, M.B.A.
Erica R. Shaver
Information Technology Specialists

**Division of Public Health Surveillance
and Informatics**

Notifiable Disease Morbidity and 122 Cities Mortality Data

Robert F. Fagan
Deborah A. Adams
Felicia J. Connor
Lateka Dammond
Donna Edwards
Patsy A. Hall
Pearl C. Sharp

In 2001, an estimated 46.2 million adults (22.8%; 95% CI = ± 0.5) were current smokers; an estimated 37.8 million (81.8%) smoked every day, and 8.4 million (18.2%) smoked some days. Of current smokers who smoked every day, an estimated 15.3 million (40.6%; 95% CI = ± 1.4) had stopped smoking for ≥ 1 day during the preceding 12 months because they were trying to quit. In 2001, an estimated 44.7 million adults were former smokers, representing 49.2% (95% CI = ± 0.9) of persons who had ever smoked.

The prevalence of cigarette smoking was higher among men (25.2% [95% CI = ± 0.8]) than women (20.7%; 95% CI = ± 0.7) (Table). Among racial/ethnic populations, Asians* (12.4%; 95% CI = ± 2.6) and Hispanics (16.7%; 95% CI = ± 1.2) had the lowest prevalence of current smoking; American Indians/Alaska Natives (AI/ANs) had the highest prevalence (32.7%; 95% CI = ± 7.5). By education level, adults who had earned a General Educational Development diploma (47.8%; 95% CI = ± 4.2) and those with a grade 9–11 education (34.3%; 95% CI = ± 2.1) had the highest prevalence of smoking; persons with master's, professional, and doctoral degrees had the lowest prevalence (9.5%; 95% CI = ± 1.3). Current smoking prevalence was highest among persons aged 18–24 years (26.9%; 95% CI = ± 1.8) and among those aged 25–44 years (25.8%; 95% CI = ± 0.8) and lowest among those aged ≥ 65 years (10.1%; 95% CI = ± 0.8). The prevalence of current smoking was higher among adults living below the poverty level[†] (31.4%; 95% CI = ± 1.8) than those at or above the poverty level (23.0%; 95% CI = ± 0.6).

Comparing current smoking prevalence data from 1965–1966 and 2000–2001 indicates a slow but steady decrease among non-Hispanic blacks and whites (Figure). Since 1970–1974, prevalence has declined more rapidly among non-Hispanic black men than among non-Hispanic white men. During 2000–2001, for the first time, current smoking prevalence among non-Hispanic black men was similar to that among non-Hispanic white men. Smoking prevalence also declined more rapidly among non-Hispanic black women than non-Hispanic white women. Before 1993–1995, current smoking prevalences among non-Hispanic black and white women generally were comparable, except during 1970–1974, when prevalence among non-Hispanic white women was lower. Since 1993–1995, prevalence among non-Hispanic black women has been lower, except during 1997–1999, when no difference was observed.

Reported by: T Woollery, PhD, A Trosclair, MS, C Husten, MD, RC Caraballo, PhD, J Kahende, PhD, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

* Excludes Native Hawaiians and Other Pacific Islanders.

[†] Calculated on the basis of U.S. Census Bureau 2000 poverty thresholds.

TABLE. Percentage of current smokers* aged ≥18 years, by selected characteristics — National Health Interview Survey, United States, 2001

Characteristic	Men (n = 14,490)		Women (n = 18,836)		Total (n = 33,326)	
	%	(95% CI [†])	%	(95% CI)	%	(95% CI)
Race/Ethnicity[§]						
White, non-Hispanic	25.4	(+1.0)	22.8	(+0.9)	24.0	(+0.6)
Black, non-Hispanic	27.7	(+2.6)	17.9	(+1.5)	22.3	(+1.4)
Hispanic	21.6	(+1.9)	11.9	(+1.3)	16.7	(+1.2)
American Indian/Alaska Native	33.5	(+10.5)	31.7	(+10.6)	32.7	(+7.5)
Asian [¶]	18.5	(+4.5)	6.3	(+2.4)	12.4	(+2.6)
Education^{**}						
0–12 yrs (no diploma)	32.2	(+2.1)	23.3	(+1.7)	28.4	(+1.4)
≤8 yrs	24.2	(+3.0)	13.4	(+2.0)	18.6	(+1.8)
9–11 yrs	39.5	(+3.3)	29.8	(+2.7)	34.3	(+2.1)
12 yrs (no diploma)	29.7	(+6.0)	29.2	(+5.3)	29.5	(+4.0)
GED ^{††} (diploma)	47.9	(+6.2)	47.7	(+5.7)	47.8	(+4.2)
12 yrs (diploma)	29.3	(+1.8)	23.4	(+1.4)	26.1	(+1.1)
Associate degree	23.7	(+2.8)	19.8	(+2.2)	21.6	(+1.7)
Some college (no degree)	26.6	(+2.1)	22.1	(+1.7)	24.2	(+1.3)
Undergraduate degree	13.3	(+1.6)	11.2	(+1.4)	12.3	(+1.0)
Graduate degree	9.0	(+1.7)	10.0	(+1.8)	9.5	(+1.3)
Age group (yrs)						
18–24	30.4	(+2.7)	23.4	(+2.3)	26.9	(+1.8)
25–44	27.3	(+1.3)	24.5	(+1.1)	25.8	(+0.8)
45–64	26.4	(+1.5)	21.4	(+1.2)	23.8	(+0.9)
≥65	11.5	(+1.4)	9.2	(+1.0)	10.1	(+0.8)
Poverty level^{§§}						
At or above	25.1	(+1.0)	21.0	(+0.8)	23.0	(+0.6)
Below	36.2	(+3.2)	28.1	(+2.1)	31.4	(+1.8)
Unknown	22.0	(+1.7)	17.1	(+1.3)	19.3	(+1.0)
Total	25.2	(+0.8)	20.7	(+0.7)	22.8	(+0.5)

* Persons who reported having smoked ≥100 cigarettes during their lifetime and who reported currently smoking every day or some days during the previous 30 days; excludes 301 respondents whose smoking status was unknown.

† Confidence interval.

§ Excludes 371 respondents of unknown, multiple, and other racial/ethnic categories.

¶ Excludes Native Hawaiians and Other Pacific Islanders.

** Persons aged ≥25 years, excluding 316 persons with unknown number of years of education.

†† General Educational Development.

§§ Calculated on the basis of U.S. Census Bureau 2000 poverty thresholds.

Editorial Note: The findings in this report indicate that smoking prevalence has declined among adults since 1965. Although selected population groups have met the national health objective for 2010, slow or no progress has been observed in other sections of the U.S. population (3). For this reason, the overall decline in cigarette smoking prevalence in the adult U.S. population is not occurring at a rate that will meet the 2010 national health objective.

The findings in this report are subject to at least three limitations. First, questionnaire wording and NHIS data collection procedures have changed since 1993. Because of these changes, trend analyses or comparisons with data from years preceding 1993 should be interpreted with caution. Second, in 1997, the Office of Management and Budget changed its data collection guidelines to require that data on Asians and Native Hawaiians and Other Pacific Islanders be collected separately. For this reason, trend data on smoking prevalence for

the combined category of Asians/Pacific Islanders cannot be estimated by using publicly available data. Finally, because NHIS data for some subpopulations (e.g., AI/ANs) are small, data for a single year might be unstable. Combining data from several years would produce more reliable estimates for these subpopulations.

Comprehensive tobacco-control programs at the state level have helped to reduce tobacco use (4). In 2000, the U.S. Surgeon General concluded that the 2010 objective could be attained only if comprehensive approaches to tobacco control were implemented (5). In 2002, six states were funding comprehensive programs at the minimum levels recommended by CDC (6). In 2002 and 2003, state budget cuts reduced state support for tobacco-prevention and -cessation programs by \$86.2 million (11.2%) (7). To attain the 2010 national health objective, comprehensive tobacco-control programs that meet CDC's recommended funding levels are needed (5,8–10).

Within these comprehensive programs, a focus on reducing tobacco use among persons in different socioeconomic strata, racial/ethnic populations, and education levels could help reduce cigarette smoking and tobacco use and reduce the substantial morbidity and mortality and economic costs associated with tobacco use.

References

1. U.S. Department of Health and Human Services. Healthy people 2010, 2nd ed. With understanding and improving health and objectives for improving health (2 vols.). Washington, DC: U.S. Department of Health and Human Services, 2000.
2. CDC. Early release of selected estimates from the National Health Interview Survey (NHIS). Available at <http://www.cdc.gov/nchs/about/major/nhis/released200207/about.htm>.
3. CDC. Surveillance for selected tobacco-use behaviors—United States, 1990–1994. In: CDC Surveillance Summaries (November 18). MMWR 1994;43(No. SS-3).
4. Farrell MC, Pechacek TF, Chaloupka FJ. The impact of tobacco control program expenditures on aggregate cigarette sales: 1981–2000. *Health Econ* 2003;22:843–59.
5. U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000.
6. CDC. Tobacco control state highlights 2002: impact and opportunity. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2002.
7. Campaign for Tobacco-Free Kids. Show us the money: a report on the states' allocation of the tobacco settlement dollars. Available at <http://tobaccofreekids.org/reports/settlements/2003/fullreport.pdf>.
8. CDC. Best practices for comprehensive tobacco control programs—August 1999. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1999.
9. Fiore MC, Bailey WC, Cohen SJ, et al. Treating tobacco use and dependence: clinical practice guideline. Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, 2000.
10. Task Force on Community Preventive Services. Recommendations regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *Am J Prev Med* 2001;20:10–5.

***Yersinia enterocolitica* Gastroenteritis Among Infants Exposed to Chitterlings — Chicago, Illinois, 2002**

During December 2002–January 2003, the Chicago Department of Public Health (CDPH) investigated a cluster of *Yersinia enterocolitica* infections reported during a 10-week period among nine Chicago infants aged ≤ 1 year. This report summarizes the investigation of these cases and underscores the continuing risks for enteric infection among infants

exposed to chitterlings (i.e., pork intestines), and the need for health-care providers to be aware of *Y. enterocolitica* as a cause of gastroenteritis, particularly in black children during traditional winter holiday celebrations.

CDPH defined a case of *Y. enterocolitica* gastroenteritis as diarrhea in an infant, with accompanying isolation of *Y. enterocolitica* from stool culture. CDPH alerted hospitals and health-care providers of the cases and requested reports of all laboratory-confirmed cases. Caretakers of the affected infants were interviewed by using a standard case investigation form. Questions were added to determine the source of the chitterlings, brand name, and preparation techniques. CDPH acquired chitterlings from several identified retail outlets for microbiologic testing.

During November–December 2002, nine infants had illness onset; the median age of the infants was 8 months (range: 7 weeks–13 months). Of the nine infants, eight were black and had either eaten chitterlings or spent time in a household in which the dish had been prepared. The one case not associated with chitterlings occurred in a Hispanic infant aged 1 year. All eight infants who were exposed to chitterlings had a history of contact with caretakers who prepared chitterlings, and one had a history of eating chitterlings. For seven infants for whom information about time of exposure to chitterlings was available, all had direct or indirect contact with chitterlings within 2 weeks of illness onset (median: 4 days; range: 1–12 days).

Caretakers of six infants purchased chitterlings from the same grocery store chain but from three separate locations. Two infants were exposed to the same brand of chitterlings. Caretakers reported different preparation techniques, and preparation times ranged from 2 to 12 hours. No chitterlings or lot numbers associated with the cases were available.

Y. enterocolitica isolates from two infants were serotyped; both were serotype O:3. Samples of chitterlings obtained for testing yielded *Y. enterocolitica* serotype O:3 and *Salmonella* serotype Derby. One infant with chitterlings-associated *Y. enterocolitica* also had *S. Typhimurium* isolated from stool culture. All nine infants recovered, and clinical illness was limited to gastroenteritis. Six infants were hospitalized; median duration of hospitalization was 5 days (range: 3–6 days). The infant who also had coinfection with *S. Typhimurium* required 6 days of hospitalization because of possible intussusception.

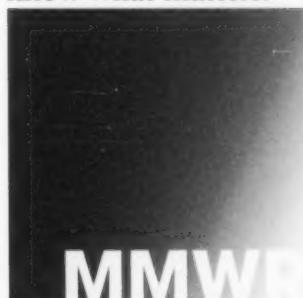
Reported by: RC Jones, MPH, JR Fernandez, SI Gerber, MD, W Paul, MD, Chicago Dept of Public Health; L Williams, Environmental Svcs, Illinois Dept of Public Health. R Turner, DVM, Food Safety and Inspection Svc, US Dept of Agriculture. JT Watson, MD, EIS Officer, CDC.

up-to-the-minute: *adj*

1 : extending up to the immediate present, including the very latest information;
see also *MMWR*.



know what matters.



MMWR
Dispatch™

Editorial Note: This report describes nine cases of *Y. enterocolitica* gastroenteritis among Chicago infants, eight of whom were exposed to chitterlings prepared in their homes during the winter holidays. Chitterlings are a known cause of *Y. enterocolitica* gastroenteritis, particularly among black children (1,2). *Y. enterocolitica*, a gram-negative enteric organism commonly present in swine, can cause illness characterized by fever, occasional bloody diarrhea, and abdominal pain. Bacteremia also can occur, especially in infants aged <3 months (3). Chitterlings are traditional winter holiday food in certain black families and are readily available in the United States. *Y. enterocolitica* is transferred from raw chitterlings to infants, particularly to bottle-fed infants, through contact with the hands of food preparers (1,2). In Fulton County, Georgia, nearly half of all child caretakers enrolled in an epidemiologic investigation to determine risk factors for *Y. enterocolitica* infection reported household preparation of chitterlings for holiday meals (1). In 2002, *Y. enterocolitica* gastroenteritis was reported by active surveillance in FoodNet sites at an incidence of 0.44 per 100,000 population. Incidence has been decreasing for years for undetermined reasons (4).

Prevention of yersiniosis should focus primarily on increased consumer awareness of the inherent bacterial contamination of chitterlings as a food product and the risks associated with their preparation and consumption. The Food Safety and Inspection Service of the U.S. Department of Agriculture regulates inspection of chitterlings produced in federally inspected establishments. Preparation of chitterlings requires thorough cleaning before cooking, an extensive process usually performed at home. Special care should be taken when handling raw chitterlings, including careful hand washing by persons cleaning chitterlings before touching children or anything used by children (5). Public health officials and clinicians should be alert to the possibility of *Y. enterocolitica* as a cause of gastroenteritis, particularly in black communities during the winter holiday season. Information regarding safe preparation of chitterlings is available at <http://www.ph.dhr.state.ga.us/epi/news/oct02/103102.shtml>.

References

1. Lee LA, Gerber AR, Lonsway DR, et al. *Yersinia enterocolitica* O:3 infections in infants and children, associated with the household preparation of chitterlings. *N Engl J Med* 1990;322:984-7.
2. Lee LA, Taylor J, Carter GP, Quinn B, Farmer JJ 3rd, Tauxe RV. *Yersinia enterocolitica* O:3: an emerging cause of pediatric gastroenteritis in the United States. *J Infect Dis* 1991;163:660-3.
3. Abdel-Haq NM, Asmar BI, Abuhammour WM, Brown WJ. *Yersinia enterocolitica* infection in children. *Pediatr Infect Dis J* 2000;19:954-8.
4. CDC. Preliminary FoodNet data on the incidence of foodborne illness—selected sites, United States, 2002. *MMWR* 2003;52:340-3.
5. CDC. Topics in minority health: *Yersinia enterocolitica* infections during the holidays in black families—Georgia. *MMWR* 1990;39:819-20.

Racial/Ethnic Disparities in Influenza and Pneumococcal Vaccination Levels Among Persons Aged ≥65 Years — United States, 1989–2001

Influenza and pneumococcal diseases are key causes of mortality among persons aged ≥65 years, accounting for approximately 36,000 and 3,400 deaths per year, respectively, during 1990–1999 (1,2). Substantial racial/ethnic disparities in adult vaccination have been documented in national surveys (2,3). Although the national health objective for 2000 of 60% receipt of influenza vaccination during the preceding 12 months by persons aged ≥65 years (objective no. 20.11) was met in 1997, and the objective of 60% for pneumococcal vaccination was nearly met in 2000, vaccine coverage levels among non-Hispanic blacks and Hispanics were 31% and 30%, respectively, compared with 57% for non-Hispanic whites (4,5). To characterize these disparities, CDC analyzed data from the 2000 and 2001 National Health Interview Surveys (NHIS) and examined trends in NHIS results for 1989–2001. This report summarizes the results of these analyses, which indicate that marked differences in vaccination coverage by race/ethnicity are observed even among persons most likely to be vaccinated (e.g., persons with the highest education level and persons with frequent visits to health-care providers). Racial/ethnic disparities in influenza and pneumococcal vaccination coverage have persisted over time. Several approaches to reduce these disparities are needed, including increasing demand for vaccination among racial/ethnic minority populations and the use of standing orders and other systems changes that promote vaccination.

The 2000 and 2001 NHIS adult core questionnaires were administered by personal interview to a nationally representative sample of the U.S. civilian, noninstitutionalized population aged ≥18 years; the response rate was 72% in 2000 and 74% in 2001. In both years, respondents aged ≥65 years were asked, "During the past 12 months, have you had a flu shot?"; in 2000, they were asked, "Have you ever had a pneumonia vaccination, sometimes called a pneumonia shot?"; and in 2001, they were asked, "Have you ever had a pneumonia shot?" Vaccine receipt was tabulated for non-Hispanic whites, non-Hispanic blacks, and Hispanics and stratified by selected demographic variables. Respondents who refused to answer the question or who reported an unknown status for influenza or pneumococcal vaccination were excluded from the analyses (1.4% and 3.5% for influenza and pneumococcal vaccination, respectively). NHIS data from 2000 and 2001

were combined to provide more precise estimates of vaccine coverage in the stratified analysis. Trends by survey year in reported vaccine coverage by race/ethnicity were examined based on responses to the 1989–2001 surveys, which used similarly worded questions. Vaccination questions were not included on the 1990, 1992, and 1996 surveys. For these years, a midpoint value between the preceding and the next year was assigned. Data were adjusted for nonresponses and weighted to provide national estimates. SUDAAN was used to calculate point estimates and 95% confidence intervals (CIs) and to conduct multivariable logistic regression analysis to assess the independent association between race/ethnicity and vaccination status while controlling for other sociodemographic factors.

During 2000–2001, a total of 9,435 non-Hispanic white, 1,341 non-Hispanic black, and 1,133 Hispanics aged ≥ 65 years were included in the analyses. A lower proportion of non-Hispanic blacks and Hispanics had >12 years of education than non-Hispanic whites (22% and 19% versus 37%), were above poverty level* (31% and 33% versus 63%), and had supplemental insurance (i.e., any insurance in addition to Medicare, except Medicaid) (39% and 26% versus 73%). A higher proportion of Hispanics than non-Hispanic blacks or whites had fewer than two doctor visits during the preceding 12 months (24% versus 18% and 17%). A similar proportion in each of the three racial/ethnic populations reported ≥ 10 doctor visits during the preceding 12 months (21% of non-Hispanic whites, 22% of non-Hispanic blacks, and 25% of Hispanics).

During 2000–2001, the average influenza and pneumococcal coverage levels reported, respectively, were 66% and 57% for non-Hispanic whites, 48% and 33% for non-Hispanic blacks, and 54% and 32% for Hispanics (Table). In general, influenza vaccination coverage was highest for non-Hispanic whites, followed by Hispanics and then non-Hispanic blacks (Table); for pneumococcal vaccination, coverage was similar for non-Hispanic blacks and Hispanics. Vaccine coverage was $<60\%$ for all subgroups of non-Hispanic blacks and the majority of subgroups of Hispanics.

After accounting for variations in sex, age, education, poverty status, region, insurance status, number of doctor visits, and high-risk conditions, non-Hispanic blacks remained significantly less likely than non-Hispanic whites to report influenza vaccination (odds ratio [OR] = 0.7; 95% CI = 0.6–0.8); the difference between Hispanics and non-Hispanic whites was not statistically significant (OR = 0.9; 95% CI = 0.7–1.1). Both non-Hispanic blacks and Hispanics were significantly less likely than non-Hispanic whites to report a

pneumococcal vaccination (OR = 0.4; 95% CI = 0.3–0.5 and OR = 0.4; 95% CI = 0.3 and 0.5, respectively).

During 1989–1999, national influenza vaccination coverage increased nearly each survey year for non-Hispanic whites, non-Hispanic blacks, and Hispanics, but the rate of increase has declined since 1997 (Figure 1). A slight decline was observed in 2001, probably reflecting delays in influenza vaccine manufacturing and distribution in 2000 (1). In 2001, differences in influenza coverage between non-Hispanic whites and Hispanics and between non-Hispanic whites and blacks were 13 and 16 percentage points, respectively; in 1989, these differences were 8 and 14 percentage points, respectively. Pneumococcal vaccination has increased steadily; however, the increase for non-Hispanic whites during 2000–2001 was smaller than previous annual increases (Figure 2). In 2001, differences in pneumococcal vaccination coverage between non-Hispanic whites and Hispanics and between non-Hispanic whites and blacks were 25 and 23 percentage points, respectively, and 5 and 9 percentage points in 1989.

Reported by: CR Stein, Association of Schools of Public Health, Atlanta, Georgia. PM Wortley, Immunization Svcs Div; JA Singleton, Epidemiology and Surveillance Div, National Immunization Program, CDC.

Editorial Note: The findings in this report indicate that although influenza and pneumococcal vaccination rates have increased for non-Hispanic blacks and Hispanics, as they have for non-Hispanic whites, substantial gaps persist by race/ethnicity. Differences in coverage are observed among persons with similar education levels, similar numbers of health-care encounters, and similar insurance status. These differences remain after controlling for factors with multivariable analysis, with the exception of receipt of influenza vaccination among Hispanics. Increases in vaccination rates for non-Hispanic blacks and Hispanics have not occurred at a rate sufficient to reach the national health objective for 2010 of eliminating disparities in health. Among non-Hispanic whites, influenza vaccination coverage was stable during 1997–2001 at $<70\%$ (2), and for all three groups, coverage was below the 90% health objective for 2010.

Reasons for differences in coverage are poorly understood. In this analysis, substantial racial/ethnic disparities in vaccination coverage were observed among persons with zero to one, two to nine, and ≥ 10 health-care provider contacts during the preceding 12 months, suggesting that access to care might not be a key factor. In the 1996 Medicare Current Beneficiary Survey, race/ethnicity was not related to reasons given for not being vaccinated (6). For influenza vaccination, the two leading reasons for not being vaccinated were not knowing it was recommended and concerns about the vaccine (e.g., fear of getting influenza and fear of side effects); for pneumococcal vaccination, the leading reason for not being vaccinated

*Calculated on the basis of U.S. Census Bureau 2000 poverty thresholds.

TABLE. Percentage of non-Hispanic white, non-Hispanic black, and Hispanic persons aged ≥65 years who reported receiving influenza vaccination during the preceding 12 months or ever receiving pneumococcal vaccination, by selected characteristics — National Health Interview Survey, United States, 2000 and 2001 combined

Characteristic	Influenza			Pneumococcal		
	White, non-Hispanic % (95% CI [*])	Black, non-Hispanic % (95% CI)	Hispanic % (95% CI)	White, non-Hispanic % (95% CI)	Black, non-Hispanic % (95% CI)	Hispanic % (95% CI)
Sex						
Men	68.0 (±1.8)	47.6 (±5.5)	54.0 (±5.8)	57.1 (±1.9)	30.3 (±4.9)	32.4 (±6.1)
Women	64.5 (±1.4)	48.7 (±3.8)	53.6 (±4.5)	57.5 (±1.4)	34.4 (±3.6)	31.1 (±4.5)
Age group (yrs)						
65–74	62.9 (±1.5)	48.4 (±4.0)	53.4 (±4.1)	52.8 (±1.7)	32.5 (±3.9)	31.4 (±4.1)
≥75	69.5 (±1.6)	48.2 (±4.7)	54.4 (±5.4)	62.5 (±1.6)	33.2 (±4.7)	32.3 (±5.7)
Region[†]						
Northeast	65.9 (±2.5)	40.4 (±7.6)	56.6 (±8.8)	54.3 (±3.1)	30.1 (±6.1)	34.1 (±11.7)
Midwest	66.4 (±2.6)	50.2 (±7.7)	49.4 (±18.2)	56.5 (±2.5)	33.9 (±6.1)	27.8 (±4.1)
South	64.3 (±1.8)	50.4 (±6.0)	42.8 (±5.5)	57.4 (±2.1)	32.2 (±3.6)	22.0 (±1.8)
West	69.0 (±2.6)	44.8 (±7.6)	63.8 (±5.7)	62.4 (±2.7)	40.1 (±10.6)	40.9 (±6.5)
Education level						
<High school	61.6 (±1.9)	45.2 (±4.3)	51.4 (±4.6)	52.8 (±2.3)	27.7 (±4.0)	28.2 (±4.7)
High school graduate	65.5 (±2.0)	50.7 (±6.1)	53.0 (±8.5)	56.6 (±2.1)	34.4 (±5.8)	35.5 (±7.5)
>High school	70.0 (±1.8)	49.4 (±6.7)	63.9 (±8.0)	61.8 (±1.9)	38.8 (±6.4)	40.8 (±9.1)
Poverty level[§]						
Below	57.2 (±4.6)	48.8 (±6.4)	48.2 (±7.0)	50.5 (±4.4)	30.6 (±5.9)	23.9 (±5.8)
At poverty	62.5 (±2.4)	50.0 (±5.9)	50.9 (±6.4)	56.7 (±2.6)	29.4 (±5.5)	33.3 (±7.9)
Above	69.0 (±1.7)	49.1 (±7.3)	61.6 (±7.6)	59.8 (±2.0)	32.6 (±7.8)	38.1 (±8.0)
Language[¶]						
English	66.1 (±1.1)	48.3 (±3.1)	58.9 (±5.2)	57.5 (±1.2)	32.8 (±2.7)	38.1 (±4.4)
Spanish	**	**	47.9 (±4.3)	**	**	24.4 (±5.0)
Insurance						
Medicare/Medicaid	55.6 (±5.4)	47.2 (±7.3)	51.6 (±6.4)	50.6 (±5.8)	33.8 (±6.9)	27.6 (±7.9)
Medicare only	60.3 (±2.3)	48.8 (±6.1)	50.7 (±5.4)	50.0 (±1.6)	31.3 (±4.9)	29.6 (±5.3)
Medicare/ Supplemental ^{††}	68.7 (±1.4)	54.0 (±5.5)	62.5 (±7.5)	60.8 (±1.5)	38.5 (±4.9)	44.0 (±7.9)
High risk^{§§}						
Yes	71.5 (±1.6)	54.8 (±4.5)	60.4 (±5.4)	65.6 (±1.6)	39.9 (±4.6)	37.3 (±5.5)
No	60.9 (±1.6)	42.3 (±4.6)	47.9 (±6.0)	50.0 (±1.7)	26.2 (±3.6)	26.4 (±4.6)
No. doctor visits						
0–1	49.7 (±2.7)	29.2 (±6.4)	38.5 (±6.9)	39.5 (±2.8)	21.4 (±6.0)	22.8 (±6.1)
2–9	67.7 (±1.4)	52.6 (±4.1)	56.2 (±4.5)	58.7 (±1.5)	34.9 (±3.5)	32.0 (±4.9)
≥10	74.2 (±2.1)	53.1 (±7.1)	63.2 (±6.9)	67.7 (±2.5)	36.9 (±6.2)	39.6 (±7.3)
Total	66.0 (±1.1)	48.3 (±3.0)	53.7 (±3.4)	57.3 (±1.2)	32.8 (±2.7)	31.7 (±3.7)

* Confidence interval.

† Northeast=Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest=Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South=Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; West=Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

§ Calculated on the basis of U.S. Census Bureau 2000 poverty thresholds.

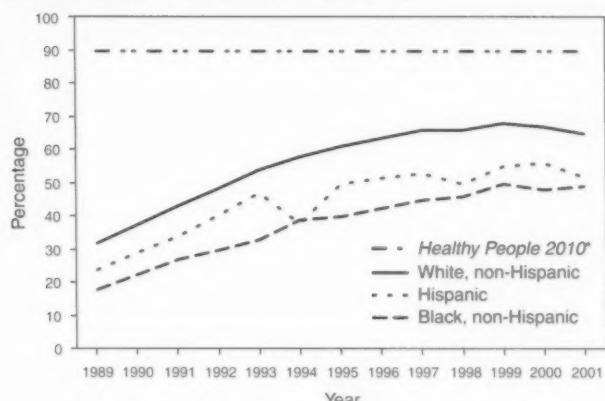
¶ Language in which the interview was conducted.

** Quantity was insufficient for analysis: <30 sampled respondents or relative standard error >0.3.

†† Any insurance in addition to Medicare, except Medicaid.

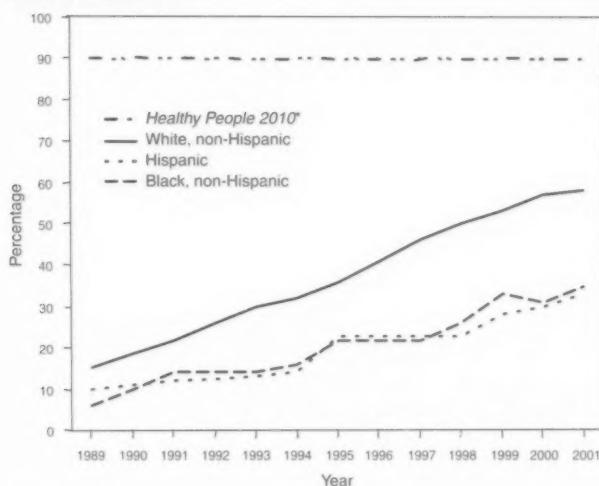
§§ Persons were classified as being at high risk for influenza if they reported diabetes during the preceding 12 months; asthma, emphysema, chronic bronchitis, or tuberculosis during the preceding 12 months; chronic kidney disease during the preceding 12 months; or ever being told by a physician that they had a heart attack, heart failure, chronic heart condition, or rheumatic heart disease. Persons who were classified as being at high risk for pneumococcal-related complications either had illness consistent with the criteria for being at high risk for influenza-related complications, with the exception of asthma, or reported liver disease or cirrhosis during the preceding 12 months.

FIGURE 1. Percentage of persons aged ≥65 years who reported receiving influenza vaccination during the preceding 12 months, by race/ethnicity and survey year — National Health Interview Survey, United States, 1989–2001



* Source: U.S. Department of Health and Human Services. *Healthy people 2010*. 2nd ed. With understanding and improving health and objectives for improving health (2 vols.). Washington, DC: U.S. Department of Health and Human Services, 2000.

FIGURE 2. Percentage of persons aged ≥65 years who reported ever receiving pneumococcal vaccination, by race/ethnicity and survey year — National Health Interview Survey, United States, 1989–2001



* Source: U.S. Department of Health and Human Services. *Healthy people 2010*. 2nd ed. With understanding and improving health and objectives for improving health (2 vols.). Washington, DC: U.S. Department of Health and Human Services, 2000.

was not knowing it was recommended. Determining the reasons for the racial/ethnic disparity requires further examination. Possible reasons might include non-Hispanic blacks and Hispanics receiving care disproportionately in settings in which vaccination coverage is lower or differences in the

provider-patient interaction for non-Hispanic blacks and Hispanics compared with non-Hispanic whites.

CDC is addressing these disparities through 2-year demonstration projects in Chicago, Illinois; Milwaukee, Wisconsin; a rural area of Mississippi; Rochester, New York; and San Antonio, Texas. In these areas, local and state health departments are working with community partners and federal agencies to improve influenza and pneumococcal vaccination levels among elderly non-Hispanic blacks and Hispanics. Strategies include development of culturally specific messages, working with health-care providers who care for elderly non-Hispanic black and Hispanic patients to implement effective interventions (e.g., standing orders and provider reminders) (7), and conducting vaccination clinics in underserved neighborhoods. A critical outcome of the demonstration project is development of new partnerships to reach populations that have not been targeted.

The findings in this report are subject to at least two limitations. First, self-reports of pneumococcal vaccination are less reliable than self-reports of influenza vaccination, in part because the recall usually is longer (8). Second, validity of self-report of vaccination by race/ethnicity has not been studied, and differential validity by race/ethnicity could affect these findings.

System changes that promote adherence to evidence-based guidelines play a key role in reducing disparities (9). The absence of racial/ethnic disparities in Veteran's Administration clinics, in which standing orders and other interventions to increase vaccination have been implemented, suggests that this approach might be effective in eliminating disparities (10). In addition, programs are needed to increase demand for vaccination among older non-Hispanic blacks and Hispanics through state and local outreach programs and coalitions to engage new partners.

References

- Thompson WW, Shay DK, Weintraub E, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. *JAMA* 2003;289:179–86.
- CDC. Influenza and pneumococcal vaccination levels among persons aged ≥65 years—United States, 2001. *MMWR* 2002;51:1019–24.
- Fiscella K, Franks P, Doescher MP, Saver BG. Disparities in health care by race, ethnicity, and language among the insured. *Med Care* 2001;40:52–9.
- Ni H, Schiller J, Hao C, Cohen R, Barnes P. Early release of selected estimates based on data from the first quarter 2003 National Health Interview Survey. U.S. Department of Health and Human Services, CDC, National Center for Health Statistics, 2003. Available at <http://www.cdc.gov/nchs.htm>.
- Public Health Service. *Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary*. Washington, DC: U.S. Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50212:521.

6. CDC. Reasons reported by Medicare beneficiaries for not receiving influenza and pneumococcal vaccinations—United States, 1996. MMWR 1999;48:556–61.
7. Task Force on Community Preventive Services. Recommendations regarding interventions to improve vaccination coverage in children, adolescents, and adults. Am J Prev Med 2000;18(suppl):S92–S96.
8. MacDonald R, Baken L, Nelson A, Nichol K. Validation of self report of influenza and pneumococcal vaccination status in elderly outpatients. Am J Prev Med 1999;16:173–7.
9. Smedley BD, Stith AY, Nelson AR, eds. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: Institute of Medicine, the National Academy Press, 2003.
10. Zimmerman RK, Santibanez TA, Janosky JE, et al. What affects influenza vaccination rates among older patients? an analysis from inner-city, suburban, rural, and veteran's affairs practices. Am J Med 2003;114:31–8.

Primary Amebic Meningoencephalitis — Georgia, 2002

In early September 2002, the Georgia Division of Public Health and CDC were notified about a fatal case of primary amebic meningoencephalitis (PAM) caused by *Naegleria fowleri* in a boy aged 11 years who had recently swum in a local river. This report summarizes the case investigation. In response to this case, the district health department recommended that local community authorities advise persons to avoid swimming in this river during periods of high temperature and low water depth.

In late August, the previously healthy boy was evaluated in a local emergency department for a 2-day history of headache and emesis; he was febrile and lethargic without focal neurologic or meningeal signs. A computerized tomography (CT) scan of the head without contrast was normal. Lumbar puncture was unsuccessful, and the patient was started on intravenous antibiotics for suspected bacterial meningitis. Within several hours of admission, he had spontaneous nonpurposeful movements, was unable to follow verbal commands, and was transferred to a children's hospital intensive care unit (ICU). En route to the ICU, he had a 30-minute right-sided seizure. A CT scan of the head on admission to the ICU showed edema of the midbrain, and cranial magnetic resonance imaging (MRI) demonstrated areas of meningeal enhancement in the brainstem suggestive of meningitis. No organisms were observed on a Gram-stained smear of cerebrospinal fluid (CSF); CSF antigen-detection tests were negative for bacterial pathogens. Fresh preparation of CSF revealed no amebae. CSF red blood cell count was $1,550/\text{mm}^3$ (normal: $0/\text{mm}^3$),

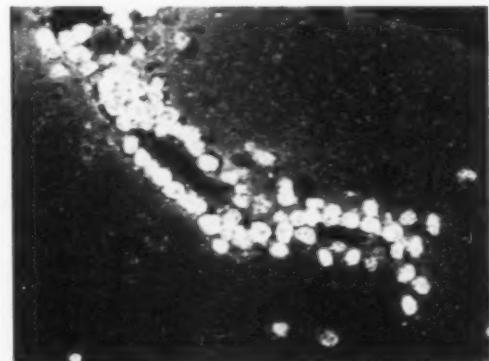
white blood cell count was $13,650/\text{mm}^3$ (normal: $0–5/\text{mm}^3$), glucose was $<5\text{ mg/dL}$ (normal: $40–70\text{ mg/dL}$), and protein was 679 mg/dL (normal: $12–60\text{ mg/dL}$). Follow-up lumbar puncture later the same day revealed motile amebae in a centrifuged CSF specimen. The patient was started on intravenous amphotericin and oral rifampin and ketoconazole.

Approximately 12 hours after admission to the ICU, the patient had apneic episodes and anisocoria and was tracheally intubated. Treatment included hyperventilation, hypertonic sodium chloride infusion, mannitol infusion, and the placement of a ventriculostomy. Despite these efforts, the patient's condition worsened, with progressive neurologic deterioration. On the fourth hospital day, the patient died. A postmortem lumbar puncture demonstrated a few motile amebae.

Autopsy findings revealed acute PAM caused by *N. fowleri* identified by immunofluorescence testing with an *N. fowleri*-specific antibody (Figure). The patient's CSF, which was inoculated on non-nutritive agar plates streaked with *Escherichia coli* (I), yielded amebae identified by immunofluorescence as *N. fowleri*.

Four days before onset of illness, the patient had attended a social event and had swum in a freshwater river with a group of friends in southern Georgia. An epidemiologic investigation was initiated to evaluate risk factors associated with *N. fowleri* infection. Interviews were conducted with 13 of 15 children aged 6–12 years who attended the event and their parents. In addition, an extensive environmental investigation of the site was conducted in conjunction with state and district health departments. Laboratory analysis of river water samples was performed at state public health laboratories and at CDC.

FIGURE. Immunofluorescence staining for *Naegleria fowleri* on brain autopsy tissue



Photo/CDC

Of the 15 children who attended the event, 10 had water exposure in the river despite a sign prohibiting swimming, a posting that was not connected to concern for *N. fowleri*. The maximum exposure time in the water was 2.5 hours (range: 30 minutes–2.5 hours). Water activities included swimming, swimming under water, wrestling in the water, and diving into the water. The patient was one of five children who spent the most time in the water (>2 hours) and engaged in underwater swimming, water wrestling, and diving. He also might have incurred trauma to the face or nose earlier that day during rough play.

The environmental investigation revealed a high ambient temperature (>90° F [>32° C]) and water temperature (91° F [33° C]) in the river at the time of the exposure. In addition, because no recent rainfall had occurred in the region, the river level was low, and the river was flowing slowly. Bacteriologic testing of the river water demonstrated that fecal coliform levels were within acceptable limits. *N. fowleri* was isolated from two of three river water samples tested and from a control sample taken from a local lake.

Reported by: T McKee, MD, Memorial Health Univ Medical Center, Savannah; L Davis, MD, South Central Health District, Dublin; P Blake, MD, L Kreckman, S Bialek, MD, Georgia Div of Public Health; MJ Beach, PhD, G Visvesvara, PhD, JH Maguire, MD, Div of Parasitic Diseases, National Center for Infectious Diseases; L Fox, MD, J Amann, MD, EIS officers, CDC.

Editorial Note: PAM is a rare but nearly always fatal infection caused by *N. fowleri*, a thermophilic, free-living ameba that inhabits freshwater ponds, lakes, and rivers, minimally chlorinated pools, and hot springs throughout the world (2). PAM results when amebae-contaminated water incidentally enters the nose during swimming or other aquatic activity, followed by migration of amebae to the brain through the olfactory nerve. Symptoms occur 1 day–2 weeks after exposure, are indistinguishable from fulminant bacterial meningitis and can include headache, fever, stiff neck, anorexia, vomiting, altered mental status, seizures, and coma. Death typically occurs 3–7 days after the onset of symptoms (3). Autopsy findings usually show acute hemorrhagic necrosis of the olfactory bulbs and cerebral cortex (4). The disease is extremely rare despite the millions of persons with exposure to recreational water. During 1989–2000, CDC's waterborne disease outbreak surveillance system documented 24 fatal cases of PAM in the United States (5). The majority of these cases occurred during the summer months and among children. Because of the thermophilic nature of *N. fowleri*, an increased incidence occurs in areas where temperatures are high (6). The case described in this report is the first case of PAM in Georgia since 1987. In 2002, two cases were reported in Texas, two in Arizona, and two in Florida.

Recognition of PAM depends on clinical suspicion based on patient history (Box). CSF findings mimic those of bacterial meningitis, with a predominantly polymorphonuclear leukocytosis and increased protein and decreased glucose concentration. Occasionally, amebae can be observed on Gram-stained smears. If PAM is suspected, a fresh-centrifuged specimen of CSF should be inspected by wet-mount

BOX. Epidemiology, diagnosis, treatment, and prevention of primary amebic meningoencephalitis (PAM) attributed to *Naegleria fowleri*

Epidemiology

- *N. fowleri* is ubiquitous worldwide in warm freshwater bodies, including lakes, ponds, rivers, minimally chlorinated pools, and hot springs.
- Cases of PAM are rare but nearly always fatal.
- A total of 24 cases were reported in the United States during 1989–2000.
- Incubation period is 1–14 days.
- High water temperature and low water depth can lead to increased risk for infection among swimmers in rivers, lakes, and ponds.

Clinical findings

- Symptoms and signs are similar to those of fulminant bacterial meningitis and include headache, fever, stiff neck, anorexia, vomiting, altered mental status, seizures, and coma.
- Death typically occurs in 3–7 days.
- Autopsy findings show acute hemorrhagic necrosis of olfactory bulbs and cerebral cortex.

Laboratory testing

- Wet-mount preparation of fresh-centrifuged specimen of cerebrospinal fluid is recommended.
- Fixation and staining with Giemsa-Wright and modified trichrome stain is recommended.
- Confirmatory testing includes culture or an indirect fluorescent antibody test.

Recommended treatment

- Recommended therapies include intravenous and intrathecal amphotericin B and oral rifampin.
- Intensive supportive care is required.

Prevention and reporting

- Avoid swimming or jumping into bodies of warm fresh water.
- Avoid swimming in thermally polluted water and in areas posted as "no swimming."
- Hold the nose shut or use nose clips when jumping or diving into bodies of fresh water.
- Report cases of *N. fowleri* infection to public health authorities.

preparation and with fixation and staining (7). Confirmation of *N. fowleri* infection requires a culture or an indirect fluorescent antibody test, which is performed at a reference laboratory (8).

Only three survivors of PAM have been documented (9,10). Successful therapy appeared to be related to early diagnosis and administration of intravenous and intrathecal amphotericin B with intensive supportive care. One surviving patient received intravenous and intrathecal miconazole and oral amphotericin B and rifampin (10).

Little is known about the risk factors for infection with PAM. Although these amebae are ubiquitous in freshwater bodies, high water temperatures and decreased precipitation leading to a low river depth might have contributed to proliferation of amebae in this river, subsequently increasing the risk for infection. In response to this case, the district health department recommended that local community authorities advise persons to avoid swimming in this river during periods of high temperature and low water depth.

Acknowledgments

This report is based on contributions by M Harden, MPA, South Central Health District, Dublin; EA Franko, DrPH, C Daniell, Georgia Div of Public Health. R Sriram, Div of Parasitic Diseases, National Center for Infectious Diseases, CDC.

References

1. Visvesvara GS. Pathogenic and opportunistic free-living amebae. In: Murray PR, Baron EJ, Pfaffer MA, Tenover FC, Yolken RH, eds. *Manual of clinical microbiology*, 7th ed. Washington, DC: American Society for Microbiology, 1999.
2. Martinez AJ, Visvesvara GS. Free-living, amorphoic and opportunistic amebas. *Brain Path* 1997;7:583-98.
3. Barnett ND, Kaplan AM, Hopkin RJ, Saubolle MA, Rudinsky MF. Primary amoebic meningoencephalitis with *Naegleria fowleri*: clinical review. *Ped Neurol* 1996;15:230-4.
4. Krogstad DJ, Visvesvara GS, Walls KW, Smith JW. Blood and tissue protozoa. In: Lennette EH, Balowes A, Hausler WJ Jr, Shadomy HJ, eds. *Manual of clinical microbiology*, 4th ed. Washington, DC: American Society for Microbiology, 1985.
5. Lee SH, Levy DA, Craun GF, Beach MJ, Calderon RL. Surveillance of water-borne disease outbreaks—United States, 1999–2000. In: CDC Surveillance Summaries (November 22). MMWR 2002;51(No. SS-8).
6. Wellings FM, Amuso PT, Chang SL, Lewis AL. Isolation and identification of pathogenic *Naegleria* from Florida lakes. *Appl Environ Microbiol* 1977;34:661-7.
7. Ma P, Visvesvara GS, Martinez AJ, Theodore FH, Daggett PM, Sawyer TK. *Naegleria* and *acanthamoeba* infections: review. *Rev Inf Dis* 1990;12:490-513.
8. Schuster FL. Cultivation of pathogenic and opportunistic free-living amebas. *Clin Micro Rev* 2002;15:342-54.
9. Apley J, Clarke SK, Roome AP, et al. Primary amoebic meningoencephalitis in Britain. *BMJ* 1970;1:596-9.
10. Seidel JS, Harmatz P, Visvesvara GS, et al. Successful treatment of primary amebic meningoencephalitis. *N Engl J Med* 1982;306:346.

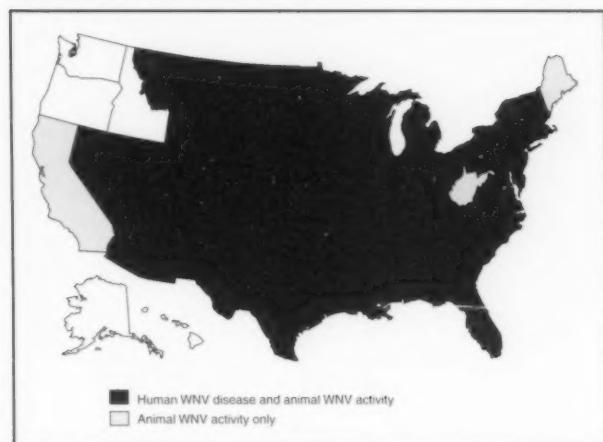
West Nile Virus Activity—United States, October 2–8, 2003

This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET as of 3 a.m., Mountain Daylight Time, October 8, 2003.

During the reporting week of October 2–8, a total of 646 human cases of WNV infection were reported from 27 states (Alabama, Colorado, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Virginia, Wisconsin, and Wyoming) and the District of Columbia, including 21 fatal cases from 13 states (Colorado, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Minnesota, New Jersey, North Dakota, Pennsylvania, Texas, and Virginia). During the same period, WNV infections were reported in 927 dead birds, 546 mosquito pools, 318 horses, one squirrel, and one unidentified animal species.

During 2003, a total of 6,507 human cases of WNV infection have been reported from Colorado (n = 2,090), Nebraska (n = 1,108), South Dakota (n = 863), Texas (n = 379), Wyoming (n = 320), North Dakota (n = 293), Montana (n = 207), New Mexico (n = 184), Pennsylvania (n = 151), Minnesota (n = 121), Iowa (n = 108), Louisiana (n = 84), Ohio (n = 71), Mississippi (n = 53), Kansas (n = 50), New York (n = 49), Oklahoma (n = 46), Missouri (n = 43), Florida (n = 32), Illinois (n = 30), Alabama (n = 29), Georgia (n = 23), Maryland (n = 20), North Carolina (n = 19), New Jersey (n = 19), Indiana (n = 17), Massachusetts (n = 12), Virginia (n = 12), Arkansas (n = 11), Wisconsin (n = 11), Delaware (n = 10), Kentucky (n = 10), Connecticut (n = nine), Tennessee (n = eight), District of Columbia (n = four), Rhode Island (n = three), New Hampshire (n = two), Arizona (n = one), Michigan (n = one), Nevada (n = one), South Carolina (n = one), Utah (n = one), and Vermont (n = one) (Figure). Of 6,419 (99%) cases for which demographic data were available, 3,383 (53%) occurred among males; the median age was 47 years (range: 1 month–99 years), and the dates of illness onset ranged from March 28 to September 29. Of the 6,419 cases, 136 fatal cases were reported from Colorado (n = 38), Nebraska (n = 15), Texas (n = 14), South Dakota (n = eight), Wyoming (n = eight), New York (n = six), Pennsylvania (n = five), Iowa (n = four), Minnesota (n = four), New Mexico (n = four), North Dakota (n = four), Alabama (n = three), Georgia (n = three), Ohio (n = three), Maryland

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2003*



* As of 3 a.m., Mountain Daylight Time, October 8, 2003.

(n = two), Missouri (n = two), Montana (n = two), New Jersey (n = two), Delaware (n = one), Illinois (n = one), Indiana (n = one), Kansas (n = one), Kentucky (n = one), Louisiana (n = one), Michigan (n = one), Mississippi (n = one), and Virginia (n = one). A total of 654 presumptive West Nile viremic blood donors have been reported to ArboNET. Of these, 584 (89%) were reported from the following nine western and midwestern states: Colorado, Kansas, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Of the 510 donors for whom data were completely reported, five subsequently had meningoencephalitis, and 72 subsequently had West Nile fever. In addition, 9,882 dead birds with WNV infection were reported from 42 states, the District of Columbia, and New York City; 2,767 WNV infections in horses have been reported from 38 states, 13 WNV infections were reported in dogs, 10 infections in squirrels, and 20 infections in unidentified animal species. During 2003, WNV seroconversions have been reported in 846 sentinel chicken flocks from 13 states. Of the eight seropositive sentinel horses reported, Minnesota reported four; South Dakota, three; and West Virginia, one. In addition, seropositivity was reported from one other unidentified animal species. A total of 6,179 WNV-positive mosquito pools have been reported from 38 states, the District of Columbia, and New York City.

Additional information about WNV activity is available from CDC at <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm> and http://www.cindi.usga.gov/hazard/event/west_nile/west_nile.html.

Notice to Readers

Recommended Adult Immunization Schedule — United States, 2003–2004

In June 2003, the Advisory Committee on Immunization Practices (ACIP) approved the revised Adult Immunization Schedule for 2003–2004. The format has been revised to better represent the schedule's two components, by age group and by medical condition (Figures 1 and 2) and better indicate how the footnotes apply to both figures.

Revisions to the schedule and footnotes include 1) additional information regarding use of tetanus-diphtheria toxoids as prophylaxis in wound management; 2) clarification regarding the number of doses of the measles component of the measles-mumps-rubella vaccine; 3) guidance regarding the use of intranasally administered, live, attenuated influenza vaccine for healthy persons aged 5–49 years; 4) recommendations regarding administering influenza vaccination to pregnant women with or without pre-existing chronic diseases or conditions; and 5) added information regarding influenza and consideration of *Haemophilus influenzae* type b vaccine for asplenic persons.

Two measures initiated by the Centers for Medicare and Medicaid Services (CMS) are expected to increase vaccination among Medicare and Medicaid beneficiaries. First, in 2002, CMS enacted a new regulation allowing for the use of standing orders at Medicare- and Medicaid-participating hospitals, long-term-care facilities, and home-health agencies to deliver influenza and pneumococcal vaccinations (1) as recommended by ACIP (2) and the Task Force on Community Preventive Services (3). Second, CMS increased reimbursement rates for administering hepatitis, influenza, and pneumococcal vaccines from a national average of \$3.98 in 2002 to \$7.72 in 2003 (4). In addition, expansion of the National Committee for Quality Assurance's Health Plan Employer Data and Information Set to include quality indicators on influenza vaccinations for persons aged 50–64 years in 2001 and pneumococcal vaccinations for persons aged ≥65 years in 2002 might improve vaccination-delivery services at managed-care organizations (5,6).

Health-care providers are reminded they should administer influenza vaccinations to all persons aged ≥50 years, regardless of preexisting medical conditions (7). Family physicians, internists, obstetrician/gynecologists, and other providers in private practice are urged to use the Adult Immunization Schedule in conjunction with the Standards for Adult Immunization Practices (8). Evidence indicates that chart reminders,

FIGURE 1. Recommended adult immunization schedule, by age group — United States, 2003–2004¹

Vaccine ^{2,3}	Age group (yrs)		
	19–49	50–64	>65
Tetanus, diphtheria (Td) ⁴	1 dose booster every 10 years*		
Influenza	1 dose annually ¹	1 dose annually ¹	
Pneumococcal (polysaccharide)	1 dose ^{**}		1 dose ^{**}
Hepatitis B ⁴	3 doses (0, 1–2, 4–6 months)**		
Hepatitis A	2 doses (0, 6–12 months) ^{††}		
Measles, mumps, rubella (MMR) ⁴	1 dose if MMR vaccination history is unreliable; 2 doses for persons with occupational or other indications ^{§§}		
Varicella ⁴	2 doses (0, 4–8 weeks) for persons who are susceptible ^{¶¶}		
Meningococcal (polysaccharide)	1 dose ^{***}		

For all persons in this age group

For persons with medical/exposure indications

Catch-up on childhood vaccinations

¹ Approved by the Advisory Committee on Immunization Practices and accepted by the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Family Physicians (AAFP).

² This schedule indicates recommended age groups for routine administration of currently licensed vaccines for persons aged ≥19 years. Licensed combination vaccines may be used whenever any components of the combination are indicated and the vaccine's other components are not contraindicated. Health-care providers should consult manufacturers' package inserts for detailed recommendations.

³ Additional information regarding these vaccines and contraindications for vaccination is available from the National Immunization Hotline (telephone, 800-232-2522 [English] or 800-232-0233 [Spanish]) or at <http://www.cdc.gov/nip>.

⁴ Covered by the Vaccine Injury Compensation Program. Information on how to file a claim is available at <http://www.hrsa.gov/osp/vicp> or by telephone, 800-338-2382. Vaccine injury claims are filed with U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-219-9657.

*** Tetanus and diphtheria (Td).** Adults, including pregnant women with uncertain histories of a complete primary vaccination series, should receive a primary series of Td. A primary series for adults is 3 doses: the first 2 doses administered at least 4 weeks apart and the third dose, 6–12 months after the second. Administer 1 dose if the person received the primary series and the last vaccination was ≥10 years previously. In addition, information is available regarding administration of Td as prophylaxis in wound management (7). The American College of Physicians Task Force on Adult Immunization supports a second option for Td use in adults: a single Td booster at age 50 years for persons who have completed the full pediatric series, including the teenage/young adult booster.

† Influenza vaccination. *Medical indications:* chronic disorders of the cardiovascular or pulmonary systems including asthma; chronic metabolic diseases including diabetes mellitus, renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression

caused by medications or by human immunodeficiency virus [HIV]) requiring medical follow-up or hospitalization during the preceding year; women who will be in the second or third trimester of pregnancy during the influenza season. *Occupational indications:* health-care workers (HCWs). *Other indications:* residents of nursing homes and other long-term-care facilities; persons likely to transmit influenza to persons at high risk (e.g., in-home caregivers to persons with medical indications; household contacts and out-of-home caregivers for children aged <23 months, or children with asthma or other indicator conditions for influenza vaccination; household members and caregivers for elderly and adults with high-risk conditions); and anyone who wishes to be vaccinated. For healthy persons aged 5–49 years without high-risk conditions, either the inactivated vaccine or the intranasally administered influenza vaccine (FluMist™) may be administered (2,3).

FIGURE 2. Recommended adult immunization schedule, by medical condition — United States, 2003–2004

Medical condition	Vaccine						
	Tetanus-diphtheria (Td)*	Influenza [†]	Pneumococcal (polysaccharide) [§]	Hepatitis B ^{**}	Hepatitis A ^{††}	Measles, mumps, rubella (MMR) [¶]	Varicella
Pregnancy		A					
Diabetes, heart disease, chronic pulmonary disease, and chronic liver disease, including chronic alcoholism							
Congenital immunodeficiency, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, radiation, or large amounts of corticosteroids		B	C		D		
Renal failure/end-stage renal disease and patients receiving hemodialysis or clotting factor concentrates				E			F
Asplenia, including elective splenectomy and terminal complement-component deficiencies				E	G		
Human immunodeficiency virus (HIV) infection		H	E,I,J				
			E,K			L	

For all persons in this group

For persons with medical/exposure indications

Catch-up on childhood vaccinations

Contraindicated

- A. For women without chronic diseases/conditions, vaccinate if pregnancy will be at second or third trimester during influenza season. For women with chronic diseases/conditions, vaccinate at any time during the pregnancy.
- B. Although chronic liver disease and alcoholism are not indicator conditions for influenza vaccination, administer 1 dose annually if the patient is aged ≥ 50 years, has other indications for influenza vaccine, or requests vaccination.
- C. Asthma is an indicator condition for influenza but not for pneumococcal vaccination.
- D. For all persons with chronic liver disease.
- E. For persons aged < 65 years, revaccinate once after ≥ 5 years have elapsed since initial vaccination.
- F. Persons with impaired humoral but not cellular immunity may be vaccinated (9).
- G. For hemodialysis patients use special formulation of vaccine (40 μ g/mL) or two 1.0 mL 20 μ g doses administered at one site. Vaccinate early in the course of renal disease. Assess antibody titers to hepatitis B surface antigen (anti-HBs) levels annually. Administer additional doses if anti-HBs levels decline to ≤ 10 mIU/mL.
- H. No data have been reported specifically on risk for severe or complicated influenza infections among persons with asplenia. However, influenza is a risk factor for secondary bacterial infections that might cause severe disease in asplenics.
- I. Administer meningococcal vaccine and consider *Haemophilus influenzae* type b vaccine.
- J. In the event of elective splenectomy, vaccinate >2 weeks before surgery.
- K. Vaccinate as close to diagnosis as possible when CD4 cell counts are highest.
- L. Withhold MMR or other measles-containing vaccines from HIV-infected persons with evidence of severe immunosuppression.

[§] **Pneumococcal polysaccharide vaccination.** *Medical indications:* chronic disorders of the pulmonary system, excluding asthma, cardiovascular diseases, diabetes mellitus, chronic liver diseases (including liver disease as a result of alcohol abuse [e.g., cirrhosis]), chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), immunosuppressive conditions (e.g.,

congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkin's disease, generalized malignancy, and organ or bone marrow transplantation), chemotherapy with alkylating agents, antimetabolites, or long-term systemic corticosteroids. *Geographic/other indications:* Alaska Natives and certain American Indian populations. *Other indications:* residents of nursing homes and other long-term-care facilities (4).

† Revaccination with pneumococcal polysaccharide vaccine. One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkin's disease, generalized malignancy, and organ or bone marrow transplantation), chemotherapy with alkylating agents, antimetabolites, or long-term systemic corticosteroids. For persons aged ≥65 years, one-time revaccination if they were vaccinated ≥5 years previously and were aged <65 years at the time of primary vaccination (4).

**** Hepatitis B (HepB) vaccine.** *Medical indications:* hemodialysis patients, patients who receive clotting-factor concentrates. *Occupational indications:* HCWs and public-safety workers who have exposure to blood in the workplace, persons in training in schools of medicine, dentistry, nursing, laboratory technology, and other allied health professions. *Behavioral indications:* injection-drug users, persons with more than one sex partner during the previous 6 months, persons with a recently acquired sexually transmitted disease (STD), all clients in STD clinics, men who have sex with men (MSM). *Other indications:* household contacts and sex partners of persons with chronic Hepatitis B virus (HBV) infection, clients and staff of institutions for the developmentally disabled, international travelers to countries with high or intermediate prevalence of chronic HBV infection for >6 months, and inmates of correctional facilities (5).

†† Hepatitis A (HepA) vaccine. For the combined HepA-HepB vaccine, use 3 doses (at 0, 1, and 6 months). *Medical indications:* persons with clotting-factor disorders or chronic liver disease. *Behavioral indications:* MSM, users of injecting and noninjecting illegal drugs. *Occupational indications:* persons working with Hepatitis A virus (HAV)-infected primates or with HAV in a research laboratory setting. *Other indications:* persons traveling to or working in countries that have high or intermediate endemicity of HAV (6).

§§ Measles, Mumps, Rubella (MMR) vaccination. *Measles component:* adults born before 1957 might be considered immune to measles. Adults born in or after 1957 should receive at least 1 dose of MMR unless they have a medical contraindication, documentation of at least 1 dose, or other acceptable evidence of immunity. A second dose of MMR is recommended for adults who 1) were exposed recently to measles or were in an outbreak setting, 2) were previously vaccinated with killed measles vaccine, 3) were vaccinated with an unknown vaccine during 1963–1967, 4) are students in postsecondary educational institutions, 5) work in health-care facilities, or 6) plan to travel internationally. *Mumps component:* 1 dose of MMR should be adequate for protection. *Rubella component:* Administer 1 dose of MMR to women whose rubella vaccination history is unreliable and counsel women to avoid becoming pregnant for 4 weeks after vaccination. For women of childbearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate pregnant women or those planning to become pregnant in the next 4 weeks. If pregnant and susceptible, vaccinate as early in the postpartum period as possible (7).

¶¶ Varicella vaccination. Recommended for all persons who do not have reliable clinical history of varicella infection, or serologic evidence of varicella zoster virus (VZV) infection who might be at high risk for exposure or transmission. This includes HCWs and family contacts of immunocompromised persons, those who live or work in environments where transmission is likely (e.g., teachers of young children, day-care employees, and residents and staff members in institutional settings), persons who live or work in environments where VZV transmission can occur (e.g., college students, inmates and staff members of correctional institutions, and military personnel), adolescents and adults living in households with children, women who are not pregnant but who might become pregnant in the future, and international travelers who are not immune to infection. Do not vaccinate pregnant women or those planning to become pregnant in the next 4 weeks. If a woman is pregnant and susceptible, vaccinate as early in the postpartum period as possible. Approximately 95% of U.S.-born adults are immune to VZV (8,9).

***** Meningococcal vaccine (quadrivalent polysaccharide for serogroups A, C, Y, and W-135).** Consider vaccination for persons with medical indications: adults with terminal complement component deficiencies or with anatomic or functional asplenia. Other indications: travelers to countries where meningitis is hyperendemic or epidemic

(e.g., the "meningitis belt" of sub-Saharan Africa, Mecca, or Saudi Arabia). Revaccination at 3–5 years may be indicated for persons at high risk for infection (e.g., persons residing in areas in which disease is epidemic). Counsel college freshmen, particularly those who live in dormitories, regarding meningococcal disease and the vaccine so that they can make an educated decision about receiving the vaccination (10). The American Academy of Family Physicians recommends that colleges provide education on meningococcal infection and vaccination and offer it to those who are interested. Physicians need not initiate discussion of the meningococcal quadrivalent polysaccharide vaccine as part of routine medical care.

References

1. CDC. Diphtheria, tetanus, and pertussis: recommendations for vaccine use and other preventive measures. Recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(No. RR-10).
2. CDC. Prevention and control of influenza: recommendations of the Advisory Committee for Immunization Practices. MMWR 2003;52(No. RR-8).
3. CDC. Using live, attenuated influenza vaccine for prevention and control of influenza: supplemental recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2003;52(No. RR-13).
4. CDC. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997;47(No. RR-8).
5. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. Recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(No. RR-13).
6. CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-12).
7. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(No. RR-8).
8. CDC. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1996;45(No. RR-11).
9. CDC. Prevention of varicella: updated recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-6).
10. CDC. Prevention and control of meningococcal disease and meningococcal disease and college students: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(No. RR-7).

patient reminders/recalls, and standing orders will reduce missed opportunities to vaccinate (9,10).

General information regarding adult immunization and vaccinating immunocompetent persons can be obtained from state and local health departments and from CDC's National Immunization Program at <http://www.cdc.gov/nip>. The 2003–2004 Adult Immunization Schedule is available at <http://www.cdc.gov/nip/recs/adult-schedule.htm>. Vaccine information statements are available at <http://www.cdc.gov/nip/publications/vis>. ACIP statements for each recommended vaccine are available at <http://www.cdc.gov/nip/publications/acip-list.htm>. In addition, instructions for reporting adverse events

after vaccination to the Vaccine Adverse Event Reporting System are available at <http://www.vaers.org> or by telephone, 800-822-7967.

References

1. U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. Medicare and Medicaid programs: conditions of participation: immunization standards for hospitals, long-term care facilities, and home health agencies. *Federal Register* 2002;67:61808-14. Available at <http://www.cms.gov/providerupdate/regs/cms3160fc.pdf>.
2. CDC. Facilitating influenza and pneumococcal vaccination through standing orders programs. *MMWR* 2003;52:68-9.
3. Task Force on Community Preventive Services. Recommendations regarding interventions to improve vaccination coverage in children, adolescents, and adults. *Am J Prev Med* 2000;18(suppl):92-140.
4. Centers for Medicare & Medicaid Services. 2003 administration rate allowances. Baltimore, Maryland: Centers for Medicare and Medicaid Services, 2003. Available at <http://www.cms.hhs.gov/preventiveservices/2.asp>.
5. Ahmed F, Harris J, Shih S, Pawlson G. New HEDIS performance measure on influenza immunization for 50- to 64-year-old adults. *Prev Med Manag Care* 2001;2:215-21.
6. Ahmed F, Elbasha EE, Thompson BL, Harris JR, Sneller VP. Cost-benefit analysis of a new HEDIS performance measure for pneumococcal vaccination. *Med Decis Making* 2002;22(suppl):S58-S66.
7. CDC. Prevention and control of influenza: recommendations of the Advisory Committee for Immunization Practices. *MMWR* 2003;52(No. RR-8).
8. Poland GA, Shefer AM, McCauley M, et al. Standards for adult immunization practices. *Am J Prev Med* 2003;25:144-50.
9. CDC. Vaccine-preventable diseases: improving vaccination coverage in children, adolescents, and adults. *MMWR* 1999;48(No. RR-8).
10. Rhew D, Glassman PA, Goetz MB. Improving pneumococcal vaccine rates: nurse protocols versus clinical reminders. *J Gen Intern Med* 1999;14:351-6.

Notice to Readers

National Adult Immunization Awareness Week, October 12-18, 2003

This year's National Adult Immunization Awareness Week (NAIAW) will be observed October 12-18. NAIW highlights the influenza vaccination season, which typically begins in early fall of each year. NAIW emphasizes the need for health-care providers and public health officials to intensify their efforts to vaccinate adults and adolescents according to recommendations of the Advisory Committee on Immunization Practices. In addition to specifying the appropriate use of influenza and pneumococcal vaccines for adults and adolescents, the recommendations cover vaccination of adults and adolescents against diphtheria, hepatitis A and B, measles, mumps, rubella, tetanus, meningococcal disease, and varicella.

In conjunction with NAIW, CDC is introducing Immunize Now, a tool kit designed to assist doctors and nurses in minimizing staff time and maximizing patient care during their

influenza vaccination efforts. The kit highlights new developments in influenza vaccination and contains bilingual patient education materials.

Additional information about influenza, the influenza vaccine, the Immunize Now provider tool kit, and other influenza education materials is available at <http://www.cdc.gov/nip/flu>. Information about NAIW is available from the National Foundation for Infectious Diseases, the National Coalition for Adult Immunization, 4733 Bethesda Avenue, Suite 750, Bethesda, MD 20814; telephone, 301-656-0003; fax, 301-907-0878; e-mail, jhan@nfid.org; and the National Partnership for Immunization, 121 North Washington Street, Suite 300, Alexandria, VA 22314, telephone, 703-836-6110, fax, 703-836-3470, e-mail, npi@hmhb.org. Information about NAIW also is available at <http://www.nfid.org>, <http://www.partnersforimmunization.org> and at <http://www.cdc.gov/nip/events/naiw/default.htm>.

Notice to Readers

Revised Standards for Adult Immunization Practices and Child and Adolescent Immunization Practices, 2003

During the 1990s, two sets of standards were introduced to guide delivery of vaccinations for adults and children: Standards for Adult Immunization Practices, developed by the National Coalition for Adult Immunization in 1990, and Standards for Pediatric Immunization Practices, developed by the National Vaccine Advisory Committee (NVAC) in 1992. Under the leadership of NVAC, both sets of standards have been revised to reflect changes in the health-care delivery system, new tools and strategies for supporting vaccination providers, growing recognition of the importance of adolescent vaccination, and an increasing emphasis on improving communications regarding vaccine benefits and risks. Key partners and stakeholders contributed to the revisions, and leading medical and public health organizations have endorsed them.

The revised standards focus on making vaccines readily accessible; properly assessing patient vaccination status; effectively communicating with patients; ensuring proper storage, administration, and documentation; implementing strategies to improve vaccination rates; and developing community partnerships to reach target patient populations. Concise explanations of each of the standards describe how to implement them.

The intended audience for both sets of standards includes health-care providers, public health officials, policymakers, health-plan administrators, and employers who purchase

health-care coverage. By applying these standards, health-care professionals can begin to develop a comprehensive plan to improve vaccination delivery in their practices, protect their patients from vaccine-preventable diseases, and help achieve the national health objectives for 2010 (1). In addition, health-care providers and program managers who lack the resources to implement these standards should find them useful for defining and obtaining the necessary resources. Both standards have been published (2,3); they also are available at <http://www.cdc.gov/nip/recs/rev-immz-stds.htm>.

References

1. U.S. Department of Health and Human Services. Healthy people 2010, 2nd ed. With understanding and improving health and objectives for improving health (2 vols.). Washington, DC: U.S. Department of Health and Human Services, 2000.
2. Poland GA, Shefer AM, McCauley M, et al. Standards for adult immunization practices. *Am J Prev Med* 2003;25:144-50.
3. National Vaccine Advisory Committee. Standards for child and adolescent immunization practices. *Pediatrics* 2003;112:958-63.

Errata: Vol. 52, Nos. 35 and 36

In Table III, "Deaths in 122 U.S. cities, week ending August 30, 2003 (35th Week)" on page 855, mortality incidence data were incorrect for all causes of death by age group and total deaths caused by pneumonia and influenza for Portland, Oregon. The corrected mortality data are as follows: all causes by all ages, 114; all causes age ≥ 65 years, 90; all causes ages 45-64 years, 15; all causes ages 25-44 years, 8; all causes ages 1-24 years, 1; all causes age < 1 year, 0; and P&I Total, 9. Data for the Pacific region and overall Total have been updated. Corrected data are available at <http://wonder.cdc.gov/mmwr/mmwrmort.asp>.

In Table III, "Deaths in 122 U.S. cities, week ending September 6, 2003 (36th Week)" on page 879, mortality incidence data were not updated for week 36, and week 35 data were repeated. Corrected data are available at <http://wonder.cdc.gov/mmwr/mmwrmort.asp>.

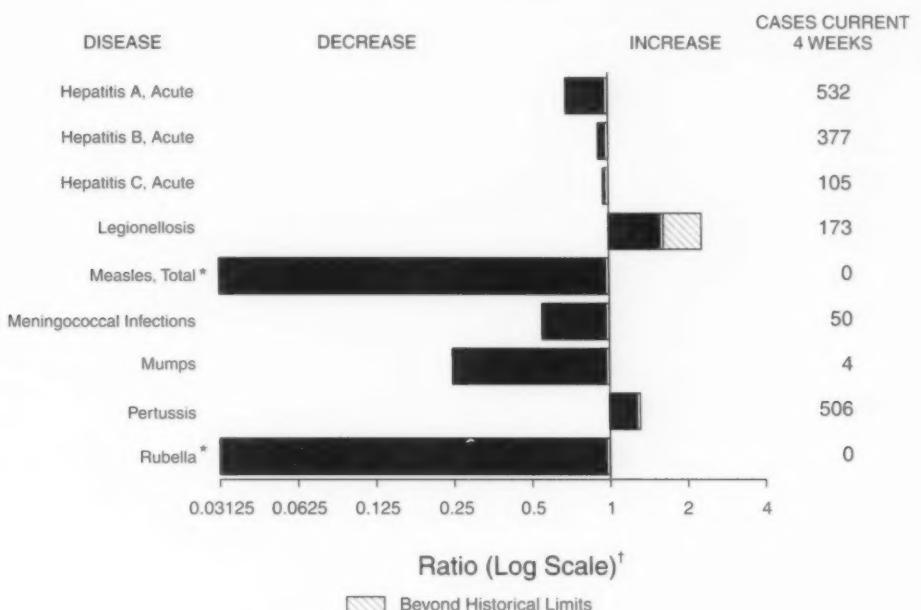
e ncore.

Week after week, MMWR Online plays an important role in helping you stay informed. From the latest CDC guidance to breaking health news, count on MMWR Online to deliver the news you need, when you need it.

Log on to cdc.gov/mmwr and enjoy MMWR performance.

know what matters.



FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals October 4, 2003, with historical data

* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 40 of zero (0).

† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending October 4, 2003 (40th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	2	Hansen disease (leprosy) [†]	44	68
Botulism:	-	-	Hantavirus pulmonary syndrome [†]	15	15
foodborne	9	24	Hemolytic uremic syndrome, postdiarrheal [†]	110	161
infant	40	52	HIV infection, pediatric ^{†§}	151	126
other (wound & unspecified)	21	13	Measles, total	40 [†]	26 ^{**}
Brucellosis [†]	60	91	Mumps	145	211
Chancroid	34	55	Plague	1	-
Cholera	1	1	Poliomyelitis, paralytic	-	-
Cyclosporiasis [†]	53	148	Psittacosis [†]	12	13
Diphtheria	-	1	Q fever [†]	57	45
Ehrlichiosis:	-	-	Rabies, human	-	3
human granulocytic (HGE) [†]	242	232	Rubella	7	16
human monocytic (HME) [†]	131	154	Rubella, congenital	-	1
other and unspecified	28	17	Streptococcal toxic-shock syndrome [†]	122	92
Encephalitis/Meningitis:	-	-	Tetanus	11	17
California serogroup viral [†]	50	115	Toxic-shock syndrome	102	82
eastern equine [†]	7	2	Trichinosis	2	13
Powassan [†]	-	1	Tularemia [†]	59	63
St. Louis [†]	12	17	Yellow fever	-	-
western equine [†]	-	-			

-: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

[†] Not notifiable in all states.

[§] Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention.

[†] Last update August 24, 2003.

[†] Of 40 cases reported, 32 were indigenous, and eight were imported from another country.

^{**} Of 26 cases reported, 13 were indigenous, and 13 were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002 (40th Week)*

Reporting area	AIDS		Chlamydia†		Coccidioidomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	30,269	31,352	623,561	633,484	2,864	3,442	2,271	2,334	1,008	2,041
NEW ENGLAND	989	1,233	20,751	20,960	-	-	130	159	-	25
Maine	49	27	1,486	1,254	N	N	18	9	-	-
N.H.	24	25	1,023	1,211	-	-	11	26	-	-
Vt.	13	12	780	696	-	-	27	27	-	-
Mass.	408	629	8,727	8,364	-	-	50	67	-	18
R.I.	79	82	2,198	2,094	-	-	12	16	-	-
Conn.	416	458	6,537	7,341	N	N	12	14	-	7
MID. ATLANTIC	6,726	7,199	84,053	70,895	-	-	287	305	100	84
Upstate N.Y.	693	537	15,018	12,784	N	N	96	91	-	22
N.Y. City	3,390	4,203	24,738	23,360	-	-	65	121	-	26
N.J.	1,159	1,115	10,306	10,780	-	-	6	15	8	22
Pa.	1,484	1,344	33,991	23,971	N	N	120	78	92	14
E.N. CENTRAL	2,925	3,285	102,719	117,289	7	21	601	794	68	1,182
Ohio	555	658	24,462	29,268	-	-	111	102	68	171
Ind.	378	421	12,715	13,113	N	N	73	36	-	17
Ill.	1,348	1,553	30,842	37,145	-	2	57	104	-	550
Mich.	506	503	23,236	24,681	7	19	101	97	-	398
Wis.	138	150	11,464	13,082	-	-	259	455	-	46
W.N. CENTRAL	563	503	35,390	35,798	1	1	434	325	241	67
Minn.	110	114	7,805	8,005	N	N	117	161	40	-
Iowa	63	63	2,676	4,150	N	N	86	37	39	-
Mo.	266	226	13,348	12,150	-	-	33	32	22	24
N. Dak.	2	1	982	933	N	N	12	10	5	-
S. Dak.	9	4	2,003	1,627	-	-	31	27	38	14
Nebr.†	39	44	3,269	3,664	1	1	17	44	36	25
Kans.	74	51	5,307	5,269	N	N	138	14	61	4
S. ATLANTIC	8,582	9,260	120,074	119,334	4	3	271	241	88	47
Del.	176	155	2,286	2,030	N	N	4	3	7	-
Md.	994	1,406	12,727	12,306	4	3	18	18	14	18
D.C.	765	453	2,159	2,503	-	-	14	4	-	-
Va.	655	609	12,536	13,658	-	-	35	13	6	-
W. Va.	61	71	1,916	1,886	N	N	4	2	-	1
N.C.	869	761	19,773	18,930	N	N	36	28	-	-
S.C.†	551	636	12,419	11,147	-	-	3	6	1	1
Ga.	1,369	1,363	25,284	24,509	-	-	82	95	25	20
Fla.	3,142	3,806	30,974	32,365	N	N	75	72	35	7
E.S. CENTRAL	1,306	1,450	40,057	40,631	N	N	97	106	24	248
Ky.	111	252	6,222	6,758	N	N	21	5	7	31
Tenn.	575	602	15,371	12,370	N	N	32	50	7	1
Ala.	308	298	9,470	12,520	-	-	35	44	10	29
Miss.	312	298	8,994	8,983	N	N	9	7	-	187
W.S. CENTRAL	3,128	3,309	76,792	83,363	-	10	48	53	215	387
Ark.	127	191	5,871	5,831	-	-	14	7	11	9
La.	414	808	12,875	14,775	N	N	2	9	2	194
Okl.	154	155	9,083	8,688	N	N	11	13	13	-
Tex.	2,433	2,155	48,963	54,069	-	10	21	24	189	184
MOUNTAIN	1,152	1,029	34,627	39,242	1,959	2,182	113	127	268	1
Mont.	11	9	1,364	1,696	N	N	17	4	206	-
Idaho	17	24	1,880	1,832	N	N	26	24	-	1
Wyo.	6	8	739	704	1	-	4	9	58	-
Colo.	296	211	8,329	10,772	N	N	28	46	-	-
N. Mex.	92	65	5,052	5,747	5	7	10	18	2	-
Ariz.	490	433	9,880	11,692	1,914	2,131	5	11	-	-
Utah	47	52	3,256	2,199	11	11	16	11	1	-
Nev.	193	227	4,127	4,600	28	33	7	4	1	-
PACIFIC	4,898	4,084	109,098	105,972	892	1,224	290	224	4	-
Wash.	311	381	12,538	11,193	N	N	43	28	-	-
Oreg.	184	259	4,996	5,103	-	-	33	35	4	-
Calif.	4,319	3,335	86,132	83,437	892	1,224	213	159	-	-
Alaska	13	22	2,754	2,803	-	-	1	-	-	-
Hawaii	71	87	2,678	3,436	-	-	-	2	-	-
Guam	6	1	-	506	-	-	-	-	-	-
P.R.	787	913	1,475	1,954	N	N	N	N	-	-
V.I.	25	65	142	125	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 31, 2003.

* Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002 (40th Week)*

Reporting area	Escherichia coli, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,774	2,840	173	148	113	34	13,088	15,579	237,210	269,705
NEW ENGLAND	113	219	27	39	14	4	956	1,401	5,444	5,890
Maine	10	30	-	6	1	-	136	161	149	107
N.H.	11	28	2	-	-	-	21	34	76	98
Vt.	14	8	-	1	-	-	95	103	64	80
Mass.	48	105	3	17	13	4	445	762	2,308	2,538
R.I.	1	10	-	1	-	-	84	124	745	676
Conn.	29	38	22	14	-	-	175	217	2,102	2,391
MID. ATLANTIC	186	310	13	1	27	6	2,573	3,186	32,380	32,468
Upstate N.Y.	75	133	9	-	13	-	762	911	5,906	6,590
N.Y. City	5	14	-	-	-	-	832	1,161	9,781	9,711
N.J.	14	52	-	-	-	-	268	367	6,031	5,936
Pa.	92	111	4	1	14	5	711	747	10,662	10,231
E.N. CENTRAL	403	692	19	28	17	4	2,106	2,715	46,128	56,867
Ohio	81	117	14	9	16	3	695	693	13,308	16,640
Ind.	73	54	-	1	-	-	-	-	5,007	5,617
Ill.	82	161	-	6	-	-	534	762	13,981	18,697
Mich.	63	112	-	3	-	-	552	715	9,954	11,188
Wis.	104	248	5	9	1	-	325	545	3,878	4,725
W.N. CENTRAL	303	400	31	27	23	4	1,464	1,569	12,426	13,825
Minn.	104	139	18	23	1	-	555	615	2,179	2,423
Iowa	68	97	-	-	-	-	210	242	607	953
Mo.	65	54	8	-	2	-	379	370	6,376	6,873
N. Dak.	8	4	-	-	9	-	24	14	42	58
S. Dak.	21	35	4	1	-	-	57	60	170	196
Nebr.	15	45	1	3	-	-	89	128	1,083	1,185
Kans.	22	26	-	-	11	4	150	140	1,969	2,137
S. ATLANTIC	116	221	55	27	8	-	2,052	2,248	59,596	68,472
Del.	4	8	N	N	N	N	34	44	885	1,217
Md.	10	24	-	-	-	-	86	98	6,059	6,943
D.C.	1	-	-	-	-	-	37	32	1,734	2,034
Va.	32	49	8	7	-	-	250	223	5,824	7,948
W. Va.	3	7	-	-	-	-	33	45	655	747
N.C.	4	36	21	-	-	-	-	-	11,389	12,407
S.C.	-	5	-	-	-	-	82	111	6,712	7,094
Ga.	24	38	3	7	-	-	711	716	12,665	13,435
Fla.	38	54	23	13	8	-	819	979	13,673	16,647
E.S. CENTRAL	63	91	2	-	7	9	260	298	19,619	23,428
Ky.	22	27	2	-	7	9	N	N	2,757	2,885
Tenn.	25	38	-	-	-	-	124	133	6,363	7,213
Ala.	13	17	-	-	-	-	136	165	5,962	8,026
Miss.	3	9	-	-	-	-	-	-	4,537	5,304
W.S. CENTRAL	67	96	1	-	12	3	222	190	31,901	37,487
Ark.	8	9	-	-	-	-	115	132	3,067	3,668
La.	3	4	-	-	-	-	5	4	7,819	9,164
Okla.	22	19	-	-	-	-	102	52	3,710	3,701
Tex.	34	64	1	-	12	3	-	2	17,305	20,954
MOUNTAIN	234	283	22	20	5	4	1,194	1,230	7,460	8,568
Mont.	12	25	-	-	-	-	84	74	73	75
Idaho	53	36	15	10	-	-	152	94	57	66
Wyo.	2	12	-	2	-	-	17	25	33	49
Colo.	57	85	3	5	5	4	339	403	1,997	2,686
N. Mex.	11	8	3	3	-	-	36	123	819	1,138
Ariz.	25	31	N	N	N	N	202	150	2,702	2,881
Utah	56	62	-	-	-	-	272	246	330	214
Nev.	18	24	1	-	-	-	92	115	1,449	1,459
PACIFIC	289	528	3	6	-	-	2,261	2,742	22,256	22,700
Wash.	78	118	1	-	-	-	235	312	2,107	2,217
Oreg.	79	181	2	6	-	-	309	341	685	658
Calif.	122	189	-	-	-	-	1,588	1,934	18,419	18,838
Alaska	3	6	-	-	-	-	63	83	408	464
Hawaii	7	34	-	-	-	-	66	72	637	523
Guam	N	N	-	-	-	-	-	7	-	38
P.R.	-	1	-	-	-	-	36	67	156	285
V.I.	-	-	-	-	-	-	-	-	36	31
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002 (40th Week)*

Reporting area	Haemophilus influenzae, invasive†								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
Reporting area	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,314	1,287	15	25	73	102	147	116	4,691	7,068
NEW ENGLAND	102	86	1	-	6	8	5	2	239	247
Maine	4	1	-	-	-	-	1	-	9	8
N.H.	11	7	1	-	-	-	-	-	11	11
Vt.	7	7	-	-	-	-	-	-	6	1
Mass.	46	40	-	-	6	4	3	2	140	113
R.I.	6	10	-	-	-	-	1	-	12	30
Conn.	28	21	-	-	-	4	-	-	61	84
MID. ATLANTIC	301	243	-	2	1	14	43	20	924	906
Upstate N.Y.	111	94	-	2	1	4	11	6	103	145
N.Y. City	48	56	-	-	-	-	10	9	328	356
N.J.	54	47	-	-	-	-	7	5	111	150
Pa.	88	46	-	-	-	10	15	-	382	255
E.N. CENTRAL	187	252	4	3	8	9	30	32	497	877
Ohio	59	64	-	-	-	1	11	7	88	246
Ind.	39	35	1	1	5	7	-	-	58	39
Ill.	58	100	-	-	-	-	14	17	152	236
Mich.	20	11	3	2	3	1	2	-	161	183
Wis.	11	42	-	-	-	-	3	8	38	173
W.N. CENTRAL	95	57	1	1	7	2	13	4	153	246
Minn.	37	37	1	1	7	2	2	2	37	36
Iowa	-	1	-	-	-	-	-	-	26	55
Mo.	37	11	-	-	-	-	11	2	52	73
N. Dak.	1	4	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	2	-	-	-	-	-	-	-	11	16
Kans.	17	3	-	-	-	-	-	-	27	62
S. ATLANTIC	308	290	1	5	12	15	17	22	1,188	1,939
Del.	-	-	-	-	-	-	-	-	5	13
Md.	68	73	-	2	5	3	1	1	121	250
D.C.	-	-	-	-	-	-	-	-	31	65
Va.	41	25	-	-	-	-	5	4	69	97
W. Va.	14	16	-	-	-	-	-	-	14	17
N.C.	36	30	-	-	3	3	2	-	72	190
S.C.	3	11	-	-	-	-	-	-	26	54
Ga.	54	62	-	-	-	-	5	10	512	373
Fla.	92	73	1	3	4	8	4	4	338	880
E.S. CENTRAL	59	55	1	1	-	4	8	10	169	207
Ky.	4	4	-	-	-	1	-	-	27	41
Tenn.	33	27	-	-	-	-	4	7	114	83
Ala.	20	15	1	1	-	3	3	1	14	32
Miss.	2	9	-	-	-	-	1	2	14	51
W.S. CENTRAL	54	46	1	2	7	8	3	2	202	835
Ark.	7	1	-	-	1	-	-	-	16	45
La.	7	6	-	-	-	-	2	2	38	66
Oklahoma	37	37	-	-	6	8	1	-	11	40
Tex.	3	2	1	2	-	-	-	-	137	684
MOUNTAIN	131	140	4	4	18	25	18	13	370	449
Mont.	-	-	-	-	-	-	-	-	8	13
Idaho	4	2	-	-	-	-	1	1	-	24
Wyo.	1	2	-	-	-	-	-	-	1	3
Colo.	29	26	-	-	-	-	6	2	59	69
N. Mex.	14	22	-	-	4	6	1	1	16	22
Ariz.	64	62	4	2	6	14	8	6	209	240
Utah	11	15	-	1	5	3	2	-	35	39
Nev.	8	11	-	1	3	2	-	3	42	39
PACIFIC	77	118	2	7	14	17	10	11	949	1,362
Wash.	9	2	-	1	6	1	2	-	44	135
Oreg.	37	44	-	-	-	-	3	3	47	50
Calif.	17	40	2	6	8	16	4	4	841	1,145
Alaska	-	1	-	-	-	-	-	1	8	9
Hawaii	14	31	-	-	-	-	1	3	9	23
Guam	-	-	-	-	-	-	-	-	-	1
P.R.	-	1	-	-	-	-	-	-	26	182
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Non-serotype b: nontypeable and type other than b; Unknown serotype: type unknown or not reported. Previously, cases reported without type information were counted as non-serotype b.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002 (40th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C		Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002						
UNITED STATES	4,655	5,624	1,228	1,445	1,463	861	445	477	13,164	16,232
NEW ENGLAND	182	224	3	18	64	78	35	52	2,210	4,915
Maine	1	8	-	-	2	2	6	5	173	49
N.H.	11	16	-	-	6	4	3	4	87	200
Vt.	2	4	3	12	5	32	-	3	35	30
Mass.	149	122	-	6	22	31	13	28	489	1,688
R.I.	11	24	-	-	13	1	-	1	434	261
Conn.	8	50	U	U	16	8	13	11	992	2,687
MID. ATLANTIC	750	1,177	125	84	422	239	88	146	8,923	8,554
Upstate N.Y.	96	92	37	36	119	62	25	47	3,623	3,736
N.Y. City	257	581	-	-	40	52	14	31	5	56
N.J.	181	240	-	4	41	27	12	29	1,551	2,038
Pa.	216	264	88	44	222	98	37	39	3,744	2,724
E.N. CENTRAL	328	512	130	85	285	224	54	60	653	1,149
Ohio	110	71	7	1	177	87	19	15	62	50
Ind.	28	38	7	-	21	15	6	6	18	18
Ill.	1	116	14	18	3	21	7	15	33	46
Mich.	158	244	102	62	71	67	17	16	7	25
Wis.	31	43	-	4	13	34	5	8	533	1,010
W.N. CENTRAL	247	175	186	612	52	43	16	13	291	202
Minn.	29	21	7	2	3	10	8	1	208	120
Iowa	10	13	1	1	9	10	-	1	36	33
Mo.	172	92	177	598	24	11	5	7	36	36
N. Dak.	2	4	-	-	1	-	-	1	-	-
S. Dak.	2	1	-	1	2	2	-	1	1	1
Nebr.	18	23	1	10	4	10	3	1	2	6
Kans.	14	21	-	-	9	-	-	1	8	6
S. ATLANTIC	1,435	1,338	130	159	408	147	96	61	879	1,123
Del.	5	13	-	-	23	7	N	N	146	158
Md.	101	99	14	9	104	30	15	14	503	630
D.C.	9	17	-	-	13	5	-	-	6	18
Va.	137	152	7	9	72	17	9	4	66	123
W. Va.	25	18	1	2	15	-	6	-	17	16
N.C.	132	186	11	22	31	9	15	6	77	103
S.C.	110	95	24	4	5	6	2	8	6	16
Ga.	416	348	3	61	24	14	25	10	12	2
Fla.	500	410	70	52	121	59	24	19	46	57
E.S. CENTRAL	312	288	64	104	79	27	24	13	47	57
Ky.	52	47	10	4	35	11	6	2	11	20
Tenn.	152	107	18	22	28	10	5	7	13	20
Ala.	47	61	6	6	13	6	11	4	5	8
Miss.	61	73	30	72	3	-	2	-	18	9
W.S. CENTRAL	226	764	457	247	36	25	21	27	54	126
Ark.	39	97	3	10	2	-	1	-	-	3
La.	46	105	46	78	-	4	1	2	3	3
Okl.	31	53	2	5	6	3	2	7	-	-
Tex.	110	509	406	154	28	18	17	18	51	120
MOUNTAIN	478	492	41	45	53	34	28	25	16	13
Mont.	13	8	1	-	4	3	2	-	-	-
Idaho	-	6	-	-	3	1	2	2	3	3
Wyo.	27	16	-	5	2	2	-	-	1	1
Colo.	67	62	12	6	12	7	10	6	4	1
N. Mex.	29	139	-	2	2	2	2	2	1	1
Ariz.	234	176	7	4	9	7	9	11	1	2
Utah	49	37	-	4	16	9	-	3	3	4
Nev.	59	48	21	24	5	3	3	1	3	1
PACIFIC	697	654	92	91	64	44	83	80	91	93
Wash.	54	56	14	17	8	3	3	8	3	9
Oreg.	88	108	13	10	N	N	4	8	16	12
Calif.	527	476	62	63	56	41	71	56	69	69
Alaska	8	6	1	-	-	-	-	-	3	3
Hawaii	20	8	2	1	-	-	5	8	N	N
Guam	-	1	-	-	-	-	-	-	-	-
P.R.	41	145	-	-	-	-	-	2	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002
(40th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	816	1,123	1,241	1,432	5,266	6,235	4,416	6,049	601	792
NEW ENGLAND	29	65	58	79	530	564	447	727	-	6
Maine	3	5	6	4	12	12	57	48	-	-
N.H.	2	7	3	11	57	15	13	38	-	-
Vt.	1	4	2	4	60	103	29	85	-	-
Mass.	6	26	36	42	383	394	164	229	-	3
R.I.	2	5	2	5	16	13	51	62	-	3
Conn.	15	18	9	13	2	27	133	265	-	-
MID. ATLANTIC	205	303	145	176	565	343	697	996	33	47
Upstate N.Y.	48	33	36	40	329	232	333	565	2	-
N.Y. City	93	197	28	32	-	15	6	10	11	9
N.J.	33	39	19	26	42	-	62	145	10	16
Pa.	31	34	62	78	194	96	296	276	10	22
E.N. CENTRAL	73	140	178	211	461	713	137	148	15	27
Ohio	16	16	50	64	203	341	48	31	10	10
Ind.	2	12	39	26	54	94	23	30	1	3
Ill.	23	59	38	44	-	112	20	31	-	12
Mich.	23	42	34	36	80	42	39	42	4	2
Wis.	9	11	17	41	124	124	7	14	-	-
W.N. CENTRAL	42	53	115	119	323	544	479	389	59	99
Minn.	21	16	23	29	132	259	28	35	1	-
Iowa	5	4	19	19	81	108	98	62	2	3
Mo.	5	14	54	39	67	114	42	45	46	91
N. Dak.	1	1	1	-	4	5	45	32	-	-
S. Dak.	2	2	1	2	3	6	67	76	4	1
Nebr.	-	5	7	23	5	8	58	-	3	4
Kans.	8	11	10	7	31	44	141	139	3	-
S. ATLANTIC	242	266	223	235	488	350	2,003	2,115	357	370
Del.	3	4	7	7	1	2	43	24	1	1
Md.	59	94	24	7	63	55	246	320	90	35
D.C.	13	18	-	-	2	2	-	-	1	-
Va.	28	22	20	34	83	117	412	469	23	27
W. Va.	4	3	4	4	14	30	70	149	5	2
N.C.	19	19	30	29	108	38	626	565	172	231
S.C.	3	7	20	25	90	38	193	109	14	45
Ga.	47	45	28	25	30	24	286	333	42	19
Fla.	66	54	90	104	97	44	127	146	9	10
E.S. CENTRAL	15	18	64	79	119	206	143	195	80	107
Ky.	7	6	15	12	41	84	31	22	1	5
Tenn.	5	3	18	32	57	83	86	108	53	65
Ala.	3	4	15	19	15	30	26	61	12	12
Miss.	-	5	16	16	6	9	-	4	14	25
W.S. CENTRAL	31	64	135	177	431	1,402	188	955	46	119
Ark.	4	2	12	23	30	473	25	3	-	45
La.	3	4	25	36	6	7	-	-	-	-
Okla.	4	8	14	18	14	35	163	102	40	61
Tex.	20	50	84	100	381	887	-	850	6	13
MOUNTAIN	36	40	62	78	761	760	150	267	9	14
Mont.	-	2	4	2	5	5	20	16	1	1
Idaho	1	-	6	3	66	56	14	32	2	-
Wyo.	1	-	2	-	123	10	6	18	2	5
Colo.	16	22	19	23	262	290	37	57	2	2
N. Mex.	1	2	7	4	51	170	5	10	-	1
Ariz.	12	6	15	23	126	109	52	119	1	-
Utah	4	5	1	4	103	76	13	10	1	-
Nev.	1	3	8	19	25	44	3	5	-	5
PACIFIC	143	174	261	278	1,588	1,353	172	257	2	3
Wash.	21	16	25	51	497	368	-	-	-	-
Oreg.	10	9	45	40	373	167	6	14	-	2
Calif.	105	141	178	177	705	786	159	217	2	1
Alaska	1	2	3	4	2	4	7	26	-	-
Hawaii	6	6	10	6	11	28	-	-	-	-
Guam	-	-	-	1	-	2	-	-	N	N
P.R.	1	1	2	6	2	2	62	67	-	-
V.I.	-	-	-	-	-	-	-	-	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002 (40th Week)*

Reporting area					Streptococcal disease, invasive, group A		Streptococcus pneumoniae, invasive			
	Salmonellosis		Shigellosis				Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	29,237	32,411	16,174	14,947	4,272	3,717	1,647	1,874	331	258
NEW ENGLAND	1,630	1,712	243	262	333	275	40	90	7	2
Maine	105	109	6	5	22	20	-	-	-	-
N.H.	94	108	5	9	21	31	-	-	N	N
Vt.	54	66	6	1	18	9	6	4	4	1
Mass.	969	970	164	166	159	94	N	N	N	N
R.I.	106	125	14	14	11	15	10	12	3	1
Conn.	302	334	48	67	102	106	24	74	U	U
MID. ATLANTIC	3,454	4,400	1,754	1,340	769	596	99	90	76	61
Upstate N.Y.	891	1,169	334	211	306	242	54	75	59	50
N.Y. City	931	1,110	297	375	101	134	U	U	U	U
N.J.	426	855	228	490	131	128	N	N	N	N
Pa.	1,206	1,266	895	264	231	92	45	15	17	11
E.N. CENTRAL	4,170	4,445	1,341	1,656	908	792	346	167	135	101
Ohio	1,111	1,057	254	486	260	174	225	34	77	9
Ind.	469	429	128	80	94	42	121	131	36	46
Ill.	1,307	1,492	654	806	182	229	-	2	-	-
Mich.	625	718	203	139	310	251	N	N	N	N
Wis.	658	749	102	145	62	96	N	N	22	46
W.N. CENTRAL	1,943	2,016	642	819	278	203	133	336	45	43
Minn.	419	444	84	171	139	101	-	220	39	39
Iowa	291	379	58	100	N	N	N	N	N	N
Mo.	776	660	311	132	60	41	10	5	2	1
N. Dak.	28	24	3	16	11	-	3	1	4	3
S. Dak.	90	94	13	151	19	12	1	1	-	-
Nebr.	115	140	97	174	23	18	-	25	N	N
Kans.	224	275	76	75	26	31	119	84	N	N
S. ATLANTIC	7,904	8,087	5,766	4,756	754	612	861	873	16	28
Del.	69	74	148	154	6	2	1	3	N	N
Md.	668	742	509	888	223	97	-	-	-	21
D.C.	36	60	62	49	12	6	2	-	6	3
Va.	809	881	322	741	90	66	N	N	N	N
W. Va.	107	106	-	9	31	17	57	37	10	4
N.C.	993	1,052	816	301	92	107	N	N	U	U
S.C.	555	566	305	93	32	32	122	150	N	N
Ga.	1,465	1,511	1,367	1,139	100	115	201	221	N	N
Fla.	3,202	3,095	2,237	1,382	168	170	478	462	N	N
E.S. CENTRAL	1,913	2,425	683	1,063	170	91	111	115	-	-
Ky.	321	272	98	116	40	19	15	13	N	N
Tenn.	574	609	251	80	130	72	96	102	N	N
Ala.	406	627	198	564	-	-	-	-	N	N
Miss.	612	917	136	303	-	-	-	-	-	-
W.S. CENTRAL	2,665	3,520	2,938	2,312	191	249	33	158	48	19
Ark.	619	776	85	153	5	6	8	6	-	-
La.	258	595	144	365	1	1	25	152	10	6
Okl.	374	391	665	427	71	38	N	N	28	2
Tex.	1,414	1,758	2,044	1,367	114	204	N	N	10	11
MOUNTAIN	1,707	1,708	901	647	372	441	21	45	4	4
Mont.	83	75	2	3	2	-	-	-	-	-
Idaho	143	108	25	12	18	9	N	N	N	N
Wyo.	69	59	6	7	2	7	4	13	-	-
Colo.	391	482	219	141	113	94	-	-	-	-
N. Mex.	201	238	166	132	91	89	17	32	-	-
Ariz.	514	439	390	286	135	214	-	-	N	N
Utah	179	135	40	22	9	28	-	-	4	4
Nev.	127	172	53	44	2	-	-	-	-	-
PACIFIC	3,851	4,098	1,906	2,092	497	458	3	-	-	-
Wash.	399	390	122	122	53	46	-	-	N	N
Oreg.	335	284	186	79	N	N	N	N	N	N
Calif.	2,901	3,162	1,555	1,838	346	353	N	N	N	N
Alaska	55	49	7	5	-	-	-	-	N	N
Hawaii	161	213	36	48	98	59	3	-	-	-
Guam	-	37	-	28	-	-	-	4	-	-
P.R.	183	401	3	28	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable.

U: Unavailable.

- : No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 4, 2003, and October 5, 2002 (40th Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Primary & secondary		Congenital		Cum. 2003	Cum. 2002	Typhoid fever		Cum. 2003
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002			Cum. 2003	Cum. 2002	
UNITED STATES	5,113	5,107	276	325	8,353	9,687	226	249	9,343
NEW ENGLAND	151	111	1	-	231	311	21	13	1,315
Maine	7	2	1	-	5	18	-	-	640
N.H.	13	3	-	-	7	10	2	-	-
Vt.	-	1	-	-	3	4	-	-	-
Mass.	101	77	-	-	156	159	11	7	535
R.I.	15	6	-	-	27	41	2	-	137
Conn.	15	22	-	-	33	79	6	6	3
MID. ATLANTIC	642	544	53	50	1,635	1,673	38	66	29
Upstate N.Y.	32	25	17	1	218	238	9	7	N
N.Y. City	356	321	25	21	880	803	13	35	-
N.J.	128	115	11	27	317	382	13	16	-
Pa.	126	83	-	1	220	250	3	8	-
E.N. CENTRAL	675	955	55	47	863	973	17	27	4,028
Ohio	168	122	3	2	155	155	2	6	954
Ind.	36	48	7	2	99	87	4	2	-
Ill.	259	371	17	34	413	467	1	11	-
Mich.	201	395	28	9	158	210	10	4	2,479
Wis.	11	19	-	-	38	54	-	4	595
W.N. CENTRAL	106	93	4	2	354	415	4	9	39
Minn.	34	43	-	1	141	177	-	3	N
Iowa	4	2	-	-	17	24	2	-	-
Mo.	39	26	4	1	91	110	1	2	N
N. Dak.	2	-	-	-	-	4	-	-	-
S. Dak.	2	-	-	-	16	10	-	-	39
Nebr.	4	5	-	-	10	20	1	-	-
Kans.	21	17	-	-	79	70	-	-	-
S. ATLANTIC	1,357	1,275	50	73	1,605	1,989	41	32	1,657
Del.	5	10	-	-	-	13	-	-	22
Md.	227	152	8	14	178	221	8	7	-
D.C.	41	44	-	1	-	-	-	-	23
Va.	63	55	1	1	186	204	11	3	466
W. Va.	2	2	-	-	12	27	-	-	967
N.C.	122	222	16	18	231	257	7	1	N
S.C.	81	95	4	9	120	140	-	-	179
Ga.	337	278	6	13	264	409	7	5	-
Fla.	479	417	15	17	614	718	8	16	N
E.S. CENTRAL	242	385	10	23	488	586	4	4	-
Ky.	29	76	1	3	90	103	-	-	N
Tenn.	105	138	3	7	164	228	2	-	-
Ala.	90	133	4	9	167	159	2	-	N
Miss.	18	38	2	4	67	96	-	-	-
W.S. CENTRAL	698	649	49	71	1,124	1,478	15	24	1,839
Ark.	41	27	-	7	69	101	-	-	-
La.	108	118	-	-	-	-	-	-	4
Okla.	50	51	1	2	114	128	-	-	N
Tex.	499	453	48	62	941	1,249	15	24	1,835
MOUNTAIN	223	244	21	13	295	309	5	9	436
Mont.	-	-	-	-	5	6	-	-	N
Idaho	8	1	-	-	8	11	-	-	N
Wyo.	-	-	-	-	3	3	-	-	-
Colo.	20	51	3	2	62	68	3	4	39
N. Mex.	38	27	-	-	6	30	-	-	-
Ariz.	143	151	18	11	159	156	2	-	4
Utah	5	5	-	-	30	21	-	2	393
Nev.	9	9	-	-	22	14	-	2	-
PACIFIC	1,019	851	33	46	1,758	1,953	81	65	-
Wash.	61	48	-	1	190	182	3	4	-
Oreg.	32	12	-	-	83	91	4	2	-
Calif.	924	783	33	44	1,388	1,526	73	56	-
Alaska	-	-	-	-	43	39	-	-	-
Hawaii	2	8	-	1	54	115	1	3	-
Guam	-	6	-	-	-	55	-	-	-
P.R.	156	199	1	21	75	86	-	-	288
V.I.	1	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable.

U: Unavailable.

- : No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending October 4, 2003 (40th Week)

Reporting Area	All causes, by age (years)						P&I [†] Total	Reporting Area	All causes, by age (years)						P&I [†] Total
	All Ages	>65	45-64	25-44	1-24	<1			All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	325	245	56	17	4	3	22	S. ATLANTIC	1,218	702	289	149	44	34	73
Boston, Mass.	U	U	U	U	U	U	U	Atlanta, Ga.	140	70	42	10	9	9	3
Bridgeport, Conn.	16	10	6	-	-	-	-	Baltimore, Md.	226	124	53	38	5	6	21
Cambridge, Mass.	10	8	1	1	-	-	-	Charlotte, N.C.	118	71	31	12	2	2	8
Fall River, Mass.	21	18	2	1	-	-	1	Jacksonville, Fla.	150	71	35	33	9	2	6
Hartford, Conn.	44	33	6	4	-	1	2	Miami, Fla.	60	39	12	3	3	3	2
Lowell, Mass.	21	17	4	-	-	-	4	Norfolk, Va.	44	23	14	3	1	3	1
Lynn, Mass.	10	9	-	1	-	-	-	Richmond, Va.	73	39	23	8	2	1	4
New Bedford, Mass.	20	15	3	2	-	-	-	Savannah, Ga.	72	56	13	2	1	-	8
New Haven, Conn.	U	U	U	U	U	U	U	St. Petersburg, Fla.	53	37	7	5	3	1	5
Providence, R.I.	58	43	12	1	1	1	3	Tampa, Fla.	168	114	33	12	5	4	10
Somerville, Mass.	8	6	1	1	-	-	1	Washington, D.C.	99	48	24	20	4	3	2
Springfield, Mass.	42	29	7	4	2	-	4	Wilmington, Del.	15	10	2	3	-	-	3
Waterbury, Conn.	32	25	6	-	-	1	1								
Worcester, Mass.	43	32	8	2	1	-	6								
MID. ATLANTIC	2,051	1,434	407	138	40	28	106	E.S. CENTRAL	878	564	194	77	22	18	51
Albany, N.Y.	31	24	2	2	2	1	1	Birmingham, Ala.	150	94	33	11	5	4	13
Allentown, Pa.	18	16	1	1	-	-	2	Chattanooga, Tenn.	81	52	14	7	3	5	3
Buffalo, N.Y.	86	60	16	7	2	1	2	Knoxville, Tenn.	98	55	31	11	1	-	8
Camden, N.J.	29	22	7	-	-	-	4	Lexington, Ky.	67	44	16	6	-	1	8
Elizabeth, N.J.	6	2	3	1	-	-	-	Memphis, Tenn.	188	117	41	20	6	4	11
Erie, Pa.	35	24	11	-	-	-	2	Mobile, Ala.	98	68	20	7	3	-	1
Jersey City, N.J.	36	27	8	1	-	-	-	Montgomery, Ala.	40	33	4	2	1	-	6
New York City, N.Y.	1,082	753	212	78	18	17	52	Nashville, Tenn.	156	101	35	13	3	4	9
Newark, N.J.	46	22	12	8	4	-	4	W.S. CENTRAL	1,466	923	293	135	67	48	96
Paterson, N.J.	12	2	5	3	1	1	-	Austin, Tex.	84	50	17	13	1	3	8
Philadelphia, Pa.	327	225	70	26	4	2	13	Baton Rouge, La.	70	52	11	5	2	-	11
Pittsburgh, Pa. [§]	34	21	8	2	2	1	1	Corpus Christi, Tex.	48	27	14	5	2	-	2
Reading, Pa.	19	18	1	-	-	-	3	Dallas, Tex.	195	113	41	21	9	11	15
Rochester, N.Y.	115	85	20	6	3	1	11	El Paso, Tex.	136	88	25	14	4	5	7
Schenectady, N.Y.	19	12	7	-	-	-	1	Ft. Worth, Tex.	112	72	25	4	1	10	6
Scranton, Pa.	28	25	2	-	-	1	2	Houston, Tex.	361	200	68	39	41	13	21
Syracuse, N.Y.	79	58	12	3	3	3	5	Little Rock, Ark.	68	44	13	7	2	2	3
Trenton, N.J.	32	24	8	-	-	-	2	New Orleans, La.	38	25	10	3	-	-	-
Utica, N.Y.	17	14	2	-	1	-	1	San Antonio, Tex.	199	139	39	15	2	4	11
Yonkers, N.Y.	U	U	U	U	U	U	U	Shreveport, La.	38	30	6	2	-	-	4
E.N. CENTRAL	1,879	1,263	400	128	46	42	100	Tulsa, Okla.	117	83	24	7	3	-	8
Akron, Ohio	61	44	10	3	1	3	5	MOUNTAIN	993	603	190	66	26	18	70
Canton, Ohio	26	21	3	1	-	1	1	Albuquerque, N.M.	182	119	41	17	3	2	9
Chicago, Ill.	338	218	70	31	9	10	14	Boise, Idaho	62	41	12	3	4	2	5
Cincinnati, Ohio	95	58	24	9	1	3	5	Colo. Springs, Colo.	73	52	16	4	-	1	-
Cleveland, Ohio	104	66	32	2	1	3	7	Denver, Colo.	105	65	20	8	4	8	10
Columbus, Ohio	163	111	35	11	3	3	11	Las Vegas, Nev.	181	117	37	17	5	2	6
Dayton, Ohio	115	84	22	5	3	1	12	Ogden, Utah	14	11	3	-	-	-	2
Detroit, Mich.	149	81	41	14	8	5	7	Phoenix, Ariz.	90	1	1	1	-	-	10
Evansville, Ind.	53	39	10	4	-	-	3	Pueblo, Colo.	35	27	5	2	1	-	1
Fort Wayne, Ind.	45	29	13	1	2	-	2	Salt Lake City, Utah	102	67	24	7	4	-	10
Gary, Ind.	19	11	3	1	3	1	2	Tucson, Ariz.	149	103	31	7	5	3	17
Grand Rapids, Mich.	70	54	13	2	-	1	4	PACIFIC	1,496	1,051	293	95	31	26	105
Indianapolis, Ind.	186	117	49	10	7	3	9	Berkeley, Calif.	U	U	U	U	U	U	U
Lansing, Mich.	49	33	13	3	-	-	1	Fresno, Calif.	124	82	20	16	4	2	5
Milwaukee, Wis.	102	69	27	3	3	-	8	Glendale, Calif.	16	14	1	1	-	-	1
Peoria, Ill.	54	40	9	1	1	3	7	Honolulu, Hawaii	69	56	7	2	1	3	2
Rockford, Ill.	31	22	7	1	-	1	1	Long Beach, Calif.	68	50	11	4	1	2	10
South Bend, Ind.	58	46	5	5	-	2	-	Los Angeles, Calif.	255	170	58	22	3	2	21
Toledo, Ohio	113	76	11	20	4	2	1	Pasadena, Calif.	14	11	-	2	1	-	3
Youngstown, Ohio	48	44	3	1	-	-	-	Portland, Oreg.	109	68	30	6	5	-	2
W.N. CENTRAL	570	386	122	35	16	11	34	Sacramento, Calif.	166	116	37	10	1	2	12
Des Moines, Iowa	81	57	17	5	1	1	4	San Diego, Calif.	160	107	33	10	5	5	15
Duluth, Minn.	21	15	3	2	1	-	3	San Francisco, Calif.	U	U	U	U	U	U	U
Kansas City, Kans.	46	30	11	4	1	-	2	San Jose, Calif.	193	144	33	8	3	5	20
Kansas City, Mo.	83	60	18	2	-	3	6	Santa Cruz, Calif.	31	22	7	1	1	-	2
Lincoln, Nebr.	27	22	5	-	-	-	1	Seattle, Wash.	138	92	36	4	4	2	4
Minneapolis, Minn.	70	43	15	7	4	1	4	Spokane, Wash.	48	36	5	4	2	1	3
Omaha, Nebr.	77	50	17	5	4	1	2	Tacoma, Wash.	105	83	15	5	-	2	5
St. Louis, Mo.	U	U	U	U	U	U	U								
St. Paul, Minn.	42	22	14	3	2	1	4								
Wichita, Kans.	123	87	22	7	3	4	8								

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of $\geq 100,000$. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.[†] Pneumonia and influenza.[§] Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.[¶] Total includes unknown ages.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy each week, send an e-mail message to listserv@listser.cdc.gov. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/mmwr> or from CDC's file transfer protocol server at <ftp://ftp.cdc.gov/pub/publications/mmwr>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

All *MMWR* references are available on the Internet at <http://www.cdc.gov/mmwr>. Use the search function to find specific articles.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of these sites. URL addresses listed in *MMWR* were current as of the date of publication.

☆U.S. Government Printing Office: 2004-633-140/69149 Region IV ISSN: 0149-2195



DEPARTMENT OF HEALTH AND HUMAN S.
CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC),
ATLANTA, GA 30333

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300
RETURN SERVICE REQUESTED

Time Sensitive Material
TRK# 080061011200300196

US Postage Paid
RMX
Presorted Standard
6 - 376 ZIP: 48106
FX 4481A 12-53

0206 93036 T17279DS 0001
PROQUEST INFORMATION & LEARNING
PERIODICALS ACQUISITION
PO BOX 1346
ANN ARBOR MI 48106-1346

